NOV 27 1923

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# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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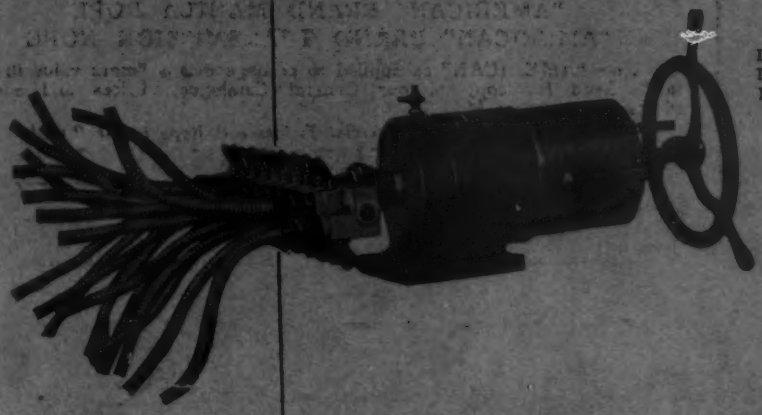

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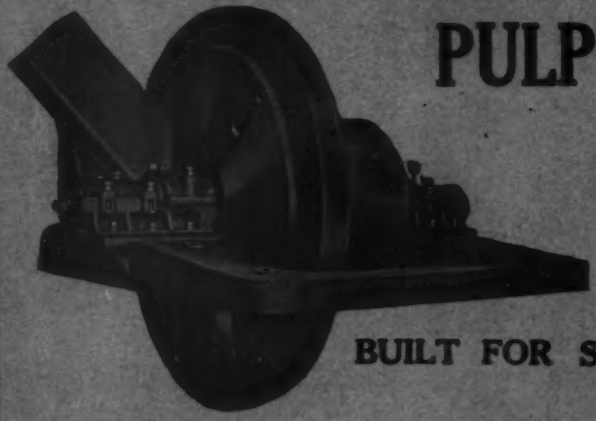

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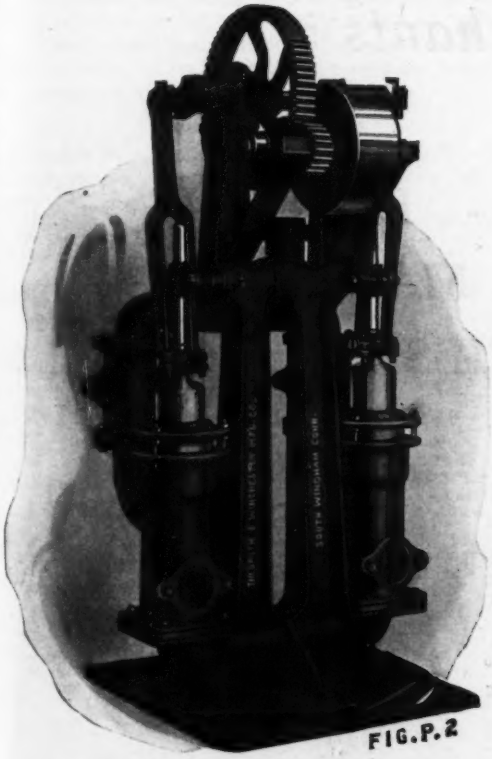

FIG. P. 2

MACHINERY

FOR

PAPER MAKING
PAPER CUTTING
PAPER BAG MAKING

SOUTH WINDHAM, CONNECTICUT

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SECOND YEAR

Published Every Thursday by the

LOCKWOOD TRADE JOURNAL CO., INC.

LESLIE R. PALMER, PRESIDENT — GEO. S. MACDONALD, VICE-PRESIDENT & TREAS. — F. K. HOPPIE, SECRETARY

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# PAPER TRADE JOURNAL

Vol. LXXVII. No. 21 NEW YORK AND CHICAGO Thursday, November 22, 1923

# GOVERNMENT TESTS OF PAPER PRODUCTS

## Annual Report of Testing Laboratory of Government Printing Office States That 3,731 Tests Were Made During the Past Year and That 131 Deliveries of Paper Were Rejected—How the Various Tests Are Made and Chief Reasons why Deliveries Are Sometimes Rejected—Maximum and Minimum Requirements Under Which Paper Is Contracted For.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., November 21, 1923.—The Testing Laboratory of the Government Printing Office made 3731 tests of paper and paper products last year according to the annual report of E. O. Reed, chief of the laboratory, made to the Public Printer.

The report states that during the year approximately 131 deliveries of paper were rejected, not including rejections of postal card paper and printed map paper. In connection with some of the outstanding examples of the results of the technical inspection of paper, during the past year, Mr. Reed says:

### Reason for Rejection

Rope Manila Wrapping Paper—Delivery showed 100% chemical wood, although specifications required not less than 75% manila and jute.

No. 1 Bristol Board—Delivery rejected on account of low bursting strength—specified not less than 90 points; delivery tested 60 points.

Sulphite Manila—Although specifications required 100% sulphite pulp, delivery contained 25% ground wood stock.

White Index Bristol Board—Delivery contained 30% rag, while specifications stated not less than 50% rag and was 40 points low in strength.

Sulphite Manila—Delivery showed bursting strength of 48 points, while specifications required not less than 75 points.

Postal Card Inspection—The following table shows the results of the inspection of postal card paper during the year:

| Order | Pounds Received | Pounds Rejected | Percentage |
|---|---|---|---|
| 247 | 701,452 | 52,313 | 7.45 |
| 572 | 195,732 | 5,015 | 2.55 |
| 1915 | 1,000,662 | 23,331 | 2.31 |
| 3330 | 1,002,673 | 14,792 | 1.47 |
| 3818 | 1,014,642 | 8,041 | .79 |
| 4322 | 1,153,984 | 29,829 | 2.58 |
| 5153 | 1,005,496 | 4,921 | .48 |
| 4664 | 1,023,205 | 4,664 | .45 |
| | 7,097,846 | 142,906 | 2.01% |

This shows an average percentage repection for the year of 2%, while the average percentage rejection of postal card paper for the year 1921 was 16% on approximately 9,000,000 pounds.

### Postal Card Inspection

During the last six months of this year the inspection and testing of postal card paper has been handled entirely by the Testing Section of the Government Printing Office. A car of postal card paper is sampled and tested in the same manner as regular deliveries of paper, but in order to prevent use of any paper which might be defective in finish, general appearance and thickness, or otherwise unsatisfactory, the paper is subjected to constant inspection while being run on the presses. Should imperfections be noted or the thickness appear to be over or under the required limits, several laps of the roll are cut to determine if this condition disappears or if it continues throughout the roll. By this more careful method of inspection, the percentage of rejections has been greatly reduced.

In connection with testing and the facilities of his laboratory, etc., Mr. Reed continues in his report:

The inspection and testing of the 50,000,000 pounds of paper, including every kind from newsprint to high grade bonds and ledgers and all paper products such as envelopes, tags, binders board, fiber board and the like, purchased annually by the Government Printing Office under definite specifications as to quality, is one of the most important duties of the Testing Section. In order that this work shall be conducted with fairness to both the Government and the contractor, definite methods are employed for sampling, inspecting, and testing.

All paper is purchased under definite specifications for quality adopted by the Joint Committee on Printing. However, the specifications for the purchase of tags, jacket envelopes, and papers suitable for special uses are drawn by the Testing Section after careful investigation and examination of samples submitted.

### Paper Sampling

It is essential that representative samples be obtained from each delivery of paper for testing. The work of sampling is done entirely by one or two responsible persons experienced in the handling of paper, under the direction of the Chief of Tests.

At least three cases, bundles, or rolls from each delivery are opened and sampled. If there are between 30 and 100 cases, bundles, or rolls in a delivery, 10% are sampled; and when there are more than 100 units in a delivery, not less than 10 cases, bundles or rolls are sampled.

With roll paper, each roll is sampled by cutting several laps and removing sheets from completely around the roll. With case or bundle paper, three sheets or more, depending upon the size of the sheet, are selected from each case or bundle opened.

The samples taken from each case, bundle, or roll in a delivery are kept separate and accurately cut to size for testing; not less than 10 x 10 inches each, if possible. Frequently full size sheets cut 17 x 22 inches, 25 x 38 inches, or 24 x 36 inches are used for testing. Although the larger sheets are somewhat more difficult to handle, they have been found more satisfactory for accurately determining ream weight and inspecting the general appearance when the smaller sample is not sufficient.

After the samples have been accurately cut, the sheets taken from the different units of a shipment are collated so every sheet of the sample to be tested is from a different roll, case, or bundle, and no two sheets from the same unit are together.

### When Resampling Is Necessary

Should the general appearance, color, or finish of the sampled

paper appear to be unsatisfactory in any respect, the delivery is immediately resampled and full reams from ream paper and complete laps from several different rolls are examined before final recommendation is made.

If the inspection and test on the first samples taken from a delivery show the paper to comply with specifications in all respects, it is recommended for acceptance. However, should the test of the first samples indicate that the paper does not comply with the specifications in any particular respect, duplicate samples are taken from the delivery in the same manner as the first samples, but from different units of the shipment. The second samples are tested especially as to the quality in which the first samples did not comply with requirements.

Should the tests on the duplicate samples also show that the paper does not comply with specifications, the delivery is recommended for rejection. However, should the second tests show the delivery to comply fully with the specifications, a third set of samples is taken in the same manner as the first and second samples, but from entirely different units of the shipment, and tested especially as to the quality which differed by the first and second tests.

In case a delivery is sampled three times it is recommended for acceptance or rejection, according to whether the tests on two of the three sets of samples, indicate the paper to comply or not to comply with specifications.

This duplicate and triplicate method of sampling and testing is used for all tests of paper, that is, stock, weight, thickness, bursting strength, ash, sizing, or any other specified test.

### Paper Testing Conditions

All physical tests for weight, thickness, bursting strength, absorption, water resistance, tensile strength, or folding endurance are conducted in a specially constructed room in which the temperature and relative humidity are automatically maintained day and night at 70° to 75° F., and 50% relative humidity. This condition is higher than the average indoor atmospheric relative humidity in most localities, which is between 35% and 45%, but it has been found possible to maintain it throughout the year with the least difficulty and expense. No difficulty has been experienced in maintaining this condition between October and May, but during the summer months (June through September) there are intervals of one or two days when the relative humidity of the testing room may go as high as 55% or 60%, due to the high humidity and temperature occurring outdoors. From our experience to date, it is expected to be able to maintain 50% relative humidity throughout the entire year, with the possible exception of perhaps 45 days when the condition may be slightly higher for short intervals, but not over 60% at any time and usually not above 55% relative humidity.

### Apparatus for Testing

Only those methods for testing are used which, from experience, have been found the most reliable and accurate. All testing apparatus is carefully standardized from time to time and frequently checked while in service. Every possible precaution is observed in order to secure fair and impartial tests. No one testing apparatus is relied upon alone.

Four testers are in service for determining the bursting strength of paper. These testers are carefully inspected and checked daily, and all gauges used are standardized by the Bureau of Standards. Two of the testers are equipped with 80-pound gauges and the other two with 160-pound gauges. At least one reserve gauge is always kept on hand for each tester. It is customary to have gauges standardized about once a month, but this depends entirely on the action of the gauge when checked each day. Frequently, it is necessary to have gauges calibrated within a shorter time. In determining bursting strength, not less than 20 tests are made of each delivery of paper.

All specifications for paper for the Government Printing Office are based on a minimum or maximum requirement; that is, stock shall be not less than a stated percentage of rag, shall not exceed a certain percentage of ground wood, ash shall not exceed a specified amount, and the bursting strength shall not be less than a stated number of points. These maximum and minimum requirements have been based on the serviceability and quality desired, and all tolerance is above or below such requirements. Paper makers should have no difficulty in meeting these specified requirements, provided they plan to be on the safe side of the limits set.

## Discuss Abuses of Tariff Act

Abuses of the tariff act as it applies to the paper industry will be followed closely by the American Paper and Pulp Association as a result of the paper import conference held at the Waldorf-Astoria Hotel last week Thursday. Several hours of discussion by some of the best known leaders in the industry were followed by a request to the American Paper and Pulp Association to take steps to curb the abuses which are becoming so frequent as to constitute a serious menace to the domestic industry.

President Henry W. Stokes of the Association, who presided at the import conference, announced after the meeting that the executive committee of the Association would be asked to meet at the earliest date possible to carry out the wish of the conference. What steps will be taken can of course not be told at this time, as this will depend entirely upon the action of the committee.

The conference was one of the most important meetings of the year, and was marked by statements from various groups in the industry indicating the extent to which foreign paper is coming into the American market in contravention of the spirit of the tariff act.

In opening the conference, President Stokes said that the meeting was called because of the damage being done to the American industry by foreign importations, and was followed by Dr. Hugh P. Baker, executive secretary of the Association who reviewed the work already done to combat the dumping and improper entry of foreign papers.

O. M. Porter, assistant secretary, followed with an explanation of the procedure under the anti-dumping statute, and other provisions of the tariff act, and Warren B. Bullock, director of the Association's Information Service gave figures showing the increase in sales of foreign paper.

John Matthews, Jr., of Washington, Chief of the Paper Division of the Bureau of Foreign & Domestic Commerce told of the difficulties experienced by government representatives in getting information about foreign imports.

Representatives of the various groups affected were then asked to tell of the difficulties they were experiencing. How high grade tissue was being entered as wrapping paper under a low duty and then sold as tissue was told by the tissue paper men. In greaseproof and similar food protective papers it was told that these special papers were being entered as wrapping, and as in the case of tissue marketed as the high quality paper at prices which domestic manufacturers could not meet.

Wrapping paper came in for extensive discussion, because of the manner in which imports have been suspected of coming under the dumping act, or under-valuation. It was pointed out that the quantity of the imports was not particularly large, but that the bankrupt sale prices at which paper from Germany, for instance, was offered had a bad psychological effect on the entire American market.

The sentiment expressed throughout the conference was the need for curbing the abuses becoming increasingly prevalent, and there is no doubt that the Association will take steps to combat every effort of European shippers to evade the tariff act.

### Technical Index Ready

Index to Technical Section, for Vol. 75, July to December, 1922, and Vol. 76, January to July, 1923, are available at 10 cents each.

# MUCH CONSTRUCTION WORK AT APPLETON PAPER PLANTS

**Riverside Fibre and Paper Co. Has Three Buildings Under Construction and Starts Excavation on a Fourth—Work Also Going on at Plants of Appleton Coated Paper Co. and Northern Paper Mills—Kimberly-Clark Co. Building Hotel at Niagara—Rafting Across Lake Superior Halts for the Winter—Wisconsin State Board of Health Making Water Pollution Survey.**

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., November 20, 1923.—Aided by excellent weather, construction of the new papermill for the Riverside Fibre and Paper Company at Appleton is progressing rapidly. The contractors, C. R. Meyer and Sons Construction Company, expect to have the exterior construction work completed by March 1, 1924. The mill will be one of the most modern in the United States. It was designed largely by Orbison and Orbison, noted papermill engineers of Appleton.

Three buildings are under construction and excavation has been started for the fourth. The buildings are so arranged that the raw material enters at one end and the completed stock leaves the other. The new units are in close proximity to the pulp mill which was erected some time ago.

The machine room will be 204 feet long and 89 feet wide, with the ceiling 27 feet high. An electric crane will be installed to assist in placing and replacing machinery. The finishing room and shipping department is to be 78 feet wide and 89 feet long, two stories high, and the stock building will be 38 feet long by 89 feet wide and five stories high. The three units will have a total length of 325 feet. Construction is of reenforced concrete and the buildings will be finished in white cement to improve their appearance.

Excavation was started last week for a filtration plant which is to cost about $25,000. The present building occupied by the Riverside company's paper machinery probably will be dismantled when the new structure is completed.

### Other Plants Expand

Rebuilding of the main building of Appleton Coated Paper Company, in progress for several months is about completed. Extensive repairs and alterations were made at the plant which now is one of the most modern in the middlewest.

The Northern Paper Mills of Green Bay has started building a filtering plant near its mills which will be capable of supplying the company with 16,000,000 gallons of water daily. The tank is 400 feet long by 200 feet wide and 19 feet deep. It is divided into two compartments, one of which holds approximately 5,000,000 gallons, sufficient to supply the mill for four hours. Pumps will fill one side of the tank where it undergoes a process of filtration while the mill is supplied from the other compartment. The plant will be ready for use by January 1, 1924, it is said. The company has been considering the problem of obtaining a pure water supply for two years. It is understood the present extraordinary pollution of the Fox river hurried the work along.

### See End of Slump

Paper manufacturers here report that the slump, which was rather pronounced a few weeks ago, is passing away. For a time some of the companies were stocking up rapidly and it was feared that if the slackness continued much longer a serious curtailment in production might be necessary. Now, it is reported, the situation is much better and a constant improvement is noted.

### Community House Dedication

An elaborate program is being prepared for dedication of the new Kimberly-Clark Company community house at Kimberly, recently completed at a cost of approximately $30,000. The formal dedication probably will be very soon. Several hundred papermill superintendents, cost accountants and technical men were guests of the company at luncheon in the new building during the joint convention here a few weeks ago.

A large crew of workmen is building a hotel for the Kimberly-Clark Company at Niagara and hope to have it completed by spring. It will have accommodations for about 90 guests.

The building will be about 94 feet long by 64 feet wide, with three floors and a basement. The first floor will contain living quarters for the management and employees, lobby, kitchens and dining rooms. Dormitories and sleeping quarters will occupy the two upper floors. The building is to be of face brick and tile construction.

### Rafting Stops for Winter

Rafting of pulpwood across Lake Superior to Ashland has stopped for the winter. The Consolidated Waterpower and Paper Company rafted four rafts across the lake, bringing over 27,500 cords of wood, valued at $300,000.

Enormous quantities of wood were brought into the Fox river valley until the last few days. The shipments have suddenly fallen off and it is probable that little more will be brought in until in the spring.

### Water Pollution Survey

A survey of water pollution in the Wisconsin river, from Rhinelander to Nekoosa, has been undertaken by E. J. Tully, chemical engineer of the Wisconsin State Board of Health. Periodic complaints are made by health authorities and by sportsmen of stream pollution. It is believed to be the purpose of the survey to determine definitely the extent of the alleged pollution and its causes. Sportsmen, it is said, are particularly anxious that steps be taken to prevent the streams from being made unfit for fish life.

### Paper Men Plan Exhibit

Wisconsin paper manufacturers have taken 4,000 square feet of space at the second annual Wisconsin Products exposition in Milwaukee in December. They will have the largest exhibit of any industry in the state. Last year the display by paper manufacturers probably was the most interesting and attracted the most attention of all the exhibits at the great mid-winter fair. Last year a miniature paper machine was placed in operation but this year a new feature of great educational value is being planned.

### Book Attracts Attention

Much attention has been attracted to a book recently published by Judson G. Rosebush of the Patten Paper Company. It is called "Ethics of Capitalism." Mr. Rosebush recently returned from the international convention of the Y. M. C. A. where he was the leader in a movement to revise the constitution of the association.

### Two Secure Patents

Two Wisconsin men identified with the paper industry recently were awarded patents by the United States commissioner of patents. They are George P. Berkey of the Consolidated Water Power and Paper Company on a process of treating pulp to insure uniform consistency, and John D. Watson of Wisconsin Wire Works on a shuttle-throwing device.

## Waltham Mill Operating

WALTHAM, Mass., November 20, 1923.—Operations have begun at the Waltham Paper Company, the bill formerly owned by John Roberts and Son Company. H. A. Allen, formerly with the West Dudley Paper Company, West Dudley, Mass., is in charge.

# QUEBEC DEVELOPMENT CORP. ACTIVE AT GRAND DISCHARGE

**Large Bond Issue Expected as Initial Expenditure on Work Amounts to $14,000,000—Splendid Progress Being Made in Development of Gabelle Rapids—City Council Planning to Help Paper Towel Industry—St. Regis Paper Co. Lets Contract for Hydro-electric Development Work at Godbout—Canada Looking for Cascara Boom—Royal Commission Moves to Toronto for Next Hearings.**

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., November 20, 1923.—It is anticipated in financial circles here that announcement will shortly be made of financing for the Quebec Development Corporation which is developing water power at the Grand Discharge on the Saguenay River, the heads of which corporation are Sir William Price and James B. Duke, the American Tobacco king. An enormous amount of work has already been carried out on the dams for power development and it is anticipated that when the bond issue comes, it will be of considerable size, as the initial expenditure on the work amounts to about $14,000,000. The first power, which will be ready from January, 1925, will be used by Price Brothers and Company in their new mill at Kenogami. Price Brothers now have a capacity of about 275 tons of paper a day at their Kenogami mill. Two machines are under construction. One will come into production about the end of January and another in October next. This will increase the daily capacity to 500 tons. Eventually Price Brothers and Company will have a capacity of 1,000 tons of news print a day if the present plans are carried out. This will make their production the largest in Canada unless the Backus-Brooks plant at Kenora is completed to that capacity before Price Brothers' mill.

### St. Maurice Power Development

Excellent progress is being made in the development of the Gabelle Rapids on the St. Maurice River by the St. Maurice Power Company, Ltd., which recently made an issue of bonds to the amount of $9,026,000. Until early this year La Gabelle was an uninhabitated spot about 10 miles above the Shawinigan Falls, but today across the river for a distance of about 1,800 feet is a concrete dam 60 feet thick at the base and rising in some places as high as 100 feet above the river's bed, while rising above that, about 150 feet above the water level and dominating the valley, is that part of the power house which will house the first units to be installed. A thousand men—concrete workers, bricklayers, carpenters, steel workers, etc., are busily engaged in putting the finishing touches to the new shackles for the St. Maurice. The work is being done by the Shawinigan Water and Power Company, and the efficiency which prevails in every department of the works is obvious even to the layman. Concrete is being poured at an average rate of 1,000 cubic yards per day. Sand is being delivered at the huge concrete mixing plant at a cost which might well make Montreal contractors envious, this cost averaging 11 cents per cubic yard. It is conveyed direct from the pits, high on the hill overlooking the rapids, by means of aerial trolley, and were it not for the storage requirements, one might imagine this sand becoming part of the new dam in about 20 minutes from the time it leaves the pits. Gasoline locomotives scurry in and from the concrete mixing plant with their loads of concrete for the forms upon which carpenters work day and night. A steam locomotive draws the steel timbers and bricks on tracks laid on an upper and lower level of the new structure. The heavy steel work is being done by the Dominion Bridge Company, while the Steel Company of Canada is the chief furnisher of the 1,500 tons of reinforcing steel being used in the dam. Electrical equipment is now being completed by the Canadian Westinghouse Company, and delivery of the first two units is expected early in the year. The section of the power house to house these units is practically closed in now, and installation of the machinery can be proceeded with immediately upon delivery.

### The Paper Towel Industry

The manufacture of paper towels by various Canadian concerns is a growing industry. An indication of the progress that is being made has been given this week by the Montreal City Council, which has passed a resolution requesting the Executive Committee to consider the advisability of enacting, by law, that individual paper towels shall be used in the lavatories of public buildings, industrial and manufacturing establishments, the use of linen or cotton towels being most dangerous from the point of view of contagion.

### St. Regis Paper Company

The St. Regis Paper Company, which has mills in Northern New York, has awarded a contract to the Canadian Comstock Company for hydro-electric development work at Godbout, Quebec. It is stated here that the company intends to follow the development by the creation of pulp and paper mills at the site.

The St. Regis Company, whose president is F. L. Carlisle, is one of the widely known American paper companies, having mills at Deferiet, West Carthage, Herrings, Black River, St. Regis Falls, and Santa Clara, N. Y.; the daily production of the plants being about 165 tons news and hanging paper, 35 tons container board, 25 tons wrapping paper, 175 tons ground wood and 85 tons unbleached sulphite.

### Cascara Bark Industry

Among the many promising industrial opportunities existing in Canada today, based upon resources indigenous to the country, one which holds out peculiar advantages of establishment and one for which there is urgent and pressing need, is that for the manufacture of cascara products on the Pacific coast of British Columbia. For some time the bark, in its raw state, has been exported from the Pacific coast to the United States, Europe and Japan, and it is now the effort of the Provincial Government and the Vancouver Board of Trade to have the product manufactured in Canada. With the practical exhaustion of supplies of cascara in Washington and Oregon, British Columbia is the sole remaining source of supply on the American continent. This province, too, is the only portion of the British Empire to which the cascara tree is a native. The world is coming to use more and more cascara every day, and the supply has been steadily diminishing until today British Columbia has the world's only great reserve. The location of a manufacturing plant in the province means the development of an industry which must inevitably increase in importance with the passing of the years and the complete exhaustion of raw supplies elsewhere.

### The Pulpwood Embargo Enquiry

The Royal Commission which is now taking evidence on behalf of the government in connection with the proposed embargo on pulpwood has this week moved from Ottawa to Toronto and is taking evidence there for and against the proposal. After the session in Toronto is completed, it is expected that the commission will hold an inquiry in Winnipeg, as there are large timber resources in the northern part of Manitoba which might be affected. Afterwards, it is expected that the commission will proceed to Regina, Calgary, Vancouver and Victoria. It is not expected that a report of the commission will be available until late next summer or early in the fall of 1924.

## Kalamazoo Traffic Club

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., November 21, 1923.—The Kalamazoo Traffic Club held its annual dinner at the Kalamazoo Vegetable Parchment community house Thursday evening. The speaker was W. J. L. Banham, president of the Associated Traffic Clubs of America and general traffic manager of the Otis Elevator Company.

# HOW CAN A TRADE ASSOCIATION BRING ABOUT STANDARDIZATION IN AN INDUSTRY?

By Dr. Hugh P. Baker, Executive Secretary of American Paper and Pulp Association

The subjects of simplification and standardization have been discussed from so many different angles during the past few years, and the discussion so often has proceeded with little or no attention to definitions and with very little idea of the objectives in view, that there is a real opportunity before trade associations serving the industries of the country in clarifying the issues involved, that these issues may be easily understood by those most concerned.

Scientific men and engineers have been considering for many years the application of simplification and standardization to manufacturing processes. Like other apparently practical subjects discussed by scientists and even by engineers the subject of standardization has been kept in more or less abstract form, and the discussion often has been academic rather than practical. The way in which standardization has been handled in programs of scientific and educational meetings frequently has given manufacturers and particularly the man on the street the idea that there is something very complex and rather mysterious about simplification and standardization. Possibly if the Great War had not come on when it did this abstract discussion of the application of simplification and standardization very gradually would have cleared itself, to become understood generally as other similar problems gradually have worked themselves free from the abstract to become a part of the practical.

Shortly after we entered the war the government, appreciating the necessity of increasing the effectiveness of man power, took up in an aggressive way the application of simplification and standardization to manufacturing processes, particularly where those processes were serving the nation in its war needs. After some hesitation and protest manufacturers generally accepted the government's plans for standardization, with the feeling that as soon as the war emergency had passed that standardization would pass. In some cases the suggestion of the government for standardization were found to be so practical and worth while that they were adopted to the benefit of both producer and consumer. In other cases, industries or groups of manufacturers have put standardization behind them as they did many other enforced activities. Like so many things done in the emergency of war, standardization was in part applied autocratically as a rule of thumb without attempt at understanding the benefits to be derived and sometimes, unfortunately, without working out methods of application that would be soundly practical under peace conditions. The accomplishment of standardization was, therefore, exceedingly uncertain and irregular, and some manufacturers have turned back the methods used before the war as a relief from war restrictions.

### A Phase of Waste Prevention

It is well to keep clearly in mind, particularly in a trade association seeking to bring about standardization, that standardization is not an end in itself but a means to an end. In a few instances standardization has been seized hold of by associations as something new and unusual, and for a time the association has actually made a fetish of standardization without appreciating the fact that the value of standardization ceases when the opportunity for service, through standardization, is ended.

Standardization is in fact an important phase of waste prevention, in that its sound application tends to eliminate the obsolete and the useless and to decrease or eliminate waste. The elimination of waste in industry, particularly with the present day complexity of economic conditions and uncertain industrial relations, is an end worthy of the effort of any association or any group of manufacturers. American industries owe much to Mr. Herbert Hoover who, while President of the American Federated Engineering Societies, carried through investigations of waste in industry. The results of these investigations, printed in book form, have been exceedingly helpful in convincing manufacturers of the country as to the necessity for waste prevention. Great credit should be given individual manufacturers who have been studying and applying the prevention of waste for years. Often these men in eliminating waste actually have adopted methods of standardization which have accomplished great economies and have made for great efficiency.

It would seem as if there is unusual opportunity today for trade associations to lift the veil of apparent mystery from the idea of standardization and indicate to manufacturers and consumers alike the simplicity of the movement and its ease of application. Every trade association is seeking greater opportunity for service to its membership. Real service can be given by interesting manufacturers in reducing or eliminating waste, and increasing efficiency in manufacturing processes. Such service will represent direct savings in dollars and cents, and that is the character of service which every trade association is seeking to give.

### Development of Standardization

The words standardization and simplification have been used synonymously in this discussion, though the title assigned calls for a discussion of standardization. It is a little unfortunate that the two terms have been used so generally as synonymous in the discussion of the application of standardization to American manufacturing methods. As pointed out in the chapter on simplification and standardization in the book on "Trade Association Activities" recently issued by the United States Department of Commerce, simplification and standardization are distinct yet so intimate that one can not be undertaken without discussion or the other at every point of procedure. Both result finally in the decrease or elimination of waste in production and distribution. As generally understood today, simplification means the elimination of excess dimensions, of unnecessary types and qualities of a specific article either by mutual agreement between producer, distributor and consumer, or through certain activities of the government, resulting from investigations by government bureaus.

It would be out of place, and possibly meaningless, to attempt to define standardization in this paper as the word is defined in dictionaries or in encyclopedias. The Bureau of Standards of the U. S. Department of Commerce has put forth a definition which is quoted in part:

Standardization is the unification of methods, practices and products involved in manufacturing and construction and in all lines of endeavor which present the necessity for performing repetition work. From the viewpoint of the buyer and seller it is the establishment of a criterion for the dimensions, quality, or performance of apparatus, materials and commodities. In its latter aspect its purpose is principally to assist in common understanding between manufacturer and consumer. In its former aspect it tends to promote scientific and engineering development and to prevent waste in manufacturing.

Standardization is arrived at by continuous research to establish in units of measure an evaluation of the several factors which will give the maximum feasible utility to materials, devices, or processes. This also includes the establishment of allowable variations from specified measurement, liberal enough for economy of production, close enough for efficient functioning and effective interchangeability. In the final step the interests of various in-

stitutional interests are considered in order to obtain an acceptance of the standard in commerce.

### What Standardization Involves

Briefly summarized, standardization involves the measurable aspects of manufacture and commerce, comprising both the industrial and business needs, specifying in units of measure the factors pertinent to an ideal quality or material, in ideal performance of mechanism, and a satisfactory efficiency of process.

Standardization is a continuous process advancing step by step at suitable intervals. Standardization is thus the steady harvesting of service experience, scientific discovery, and technical data for the steady advance of industry."

At the beginning of the modern period of manufacturing, when the individual home worker was yet a large factor in production, there was little thought of the desirability or necessity of establishing standards of style or quality, or any other feature of standardization. There were often as many styles or forms of a product as there were individual manufacturers. Gradually the ingenuity of men, working often under the force of economic necessity or of great emergencies, such as war, evolved effective machinery so that instead of the shoemaker making a pair of shoes or boots complete in his own shop, as a piece of hand-work, machines were used to turn a number of pairs of shoes of the same style and quality. Gradually machinery crept into the manufacture of most of the products forming trade between individuals and communities. It would be out of place here to discuss the opposition of the individual worker to the introduction of machinery. That opposition was serious in many cases, and delayed the development of the modern period of manufacturing, but the growth of population and the stimulation of trade eventually won out and the idea of handwork, except among isolated groups of people, gave way to modern methods of machine production.

In many instances the introduction of machinery in industries where there appeared to be unlimited supplies of raw materials resulted in great waste. If time permitted it would be exceedingly interesting to trace the development of the manufacture of paper from the hand screen to the modern paper machine. The waste in the manufacture of paper, particularly after wood came to be used as a common raw material, was in many instances very great. Recently it has been my fortune to go through a number of reports of earlier meetings of associations in the paper industry, and one reads with both curiosity and amusement of the discussions of the amount of raw material necessary to produce a certain quantity of paper, and of the resistance of the manufacturer to technical men in the industry who were seeking to make production more effective and less wasteful. Even though waste in the manufacture of pulp and paper today has been largely eliminated, yet the fact that waste was once rather common has remained as a fixed idea in the minds of the public, as indicated by present day discussion on the part of biologists and others who are discussing the prevention of stream pollution, as if streams and rivers upon which paper mills are located are still being generally polluted by mill waste.

The improvement of machinery in the paper industry, and the gradual introduction of "save-alls" has cut down waste to the point where the industry has actually made great progress in standardization in the way of production and quality. Yet the average paper manufacturer is hardly ready to acknowledge that standardization has taken place, and he is still somewhat resistant to the idea that there is opportunity for greater accomplishment in standardization.

As indicated above, increased production was the first real objective in the use of machinery, stimulated, of course, by emergencies in the way of labor supply and by initiative on the part of the inventor and capitalist. The necessity for increasing production will be continued, and out of this necessity will come, in a very logical way, certain developments in standardization which we may now consider to be difficult of achievement.

### What American Industries Are Doing

The Department of Commerce at Washington and the Chamber of Commerce of the United States have been interested for some time in bringing about the gradual introduction of simplification and standardization in American industries. Some very excellent work has been done by these organizations, but of necessity the work has been largely educational, and must continue to be for some time. Here and there are examples now classic which are constantly referred to as a goal towards which we should work. No one should question the advantage which has come to the paving brick manufacturers, the wire fence manufacturers and others, and the success of standardization of these two industries in forcing the door open in such a way that eventually it will swing wide, and every industry will consider some phase of simplification and standardization as accepted parts of working programs.

A questionnaire in the form of a letter was sent in the midsummer to members of this Association and surprisingly complete replies have been received. The compilation of the replies gives information that means much to the furtherance of the idea of the right kind of standardization and simplification.

Briefly, the result of the letter questionnaire is as follows:

One hundred of the leading national trade associations were sent a letter in which 7 questions were asked; 79 replies were received and the replies in tabulated form give quite an unusual record of the interest in, and the development of, standardization by trade associations. A few of the associations were unable to contribute and the final summary covers 66 replies. The help given by these replies is deeply appreciated and without the cordial letters received from secretaries throughout the country this paper could not have been written.

The first question asked was "Has your Association made any effort to induce its members to standardize product; if so, of what has this effort consisted?"

Practically all of the associations reporting have made some effort toward standardization. A few associations, dealing with products in which the elements of style or variety or novelty in pattern are necessary to please the consumers and to meet competition, for instance in wearing apparel, reported that little had been done. Such replies came from the National Association of Shoe Wholesalers, Nathional Boot and Shoe Manufacturers' Association, Association of Collar Manufacturers, and others; again, those associations having to do with products in which the art element plays a part, for instance, National Jewelers Board of Trade, National Association of Upholstered Furniture Dealers, Sterling Silverware Manufacturers Association. It would appear that variety of style or design is what makes the sale of novelty, for instance, the Toy Manufacturers of the U. S. A. Where associations reported no need for standardization they have reported that some effort is made at simplification of variety and sizes, particularly through demonstration of the cost of making and selling in multiplicity of styles, varieties and sizes. The impetus toward simplification seems to come largely through cost knowledge.

### Many Individual Problems

Individual associations have distinctly individual problems in attempting to standardize or simplify a particular product. For instance, the Button Manufacturers Association attempting to standardize grade of finished button; Corset Manufacturers Association to standardize color—a certain color of pink; Machine Tool Builders, to standardize the tool-holding and work-holding elements of machines.

Certain products in which fabrication is simple, lend themselves easily to standardization, for instance, brick, cement, lumber, zinc, certain kinds of hardware; and associations covering these products

(*Continued on page* 34)

# Power plant cost accounting has come to stay!

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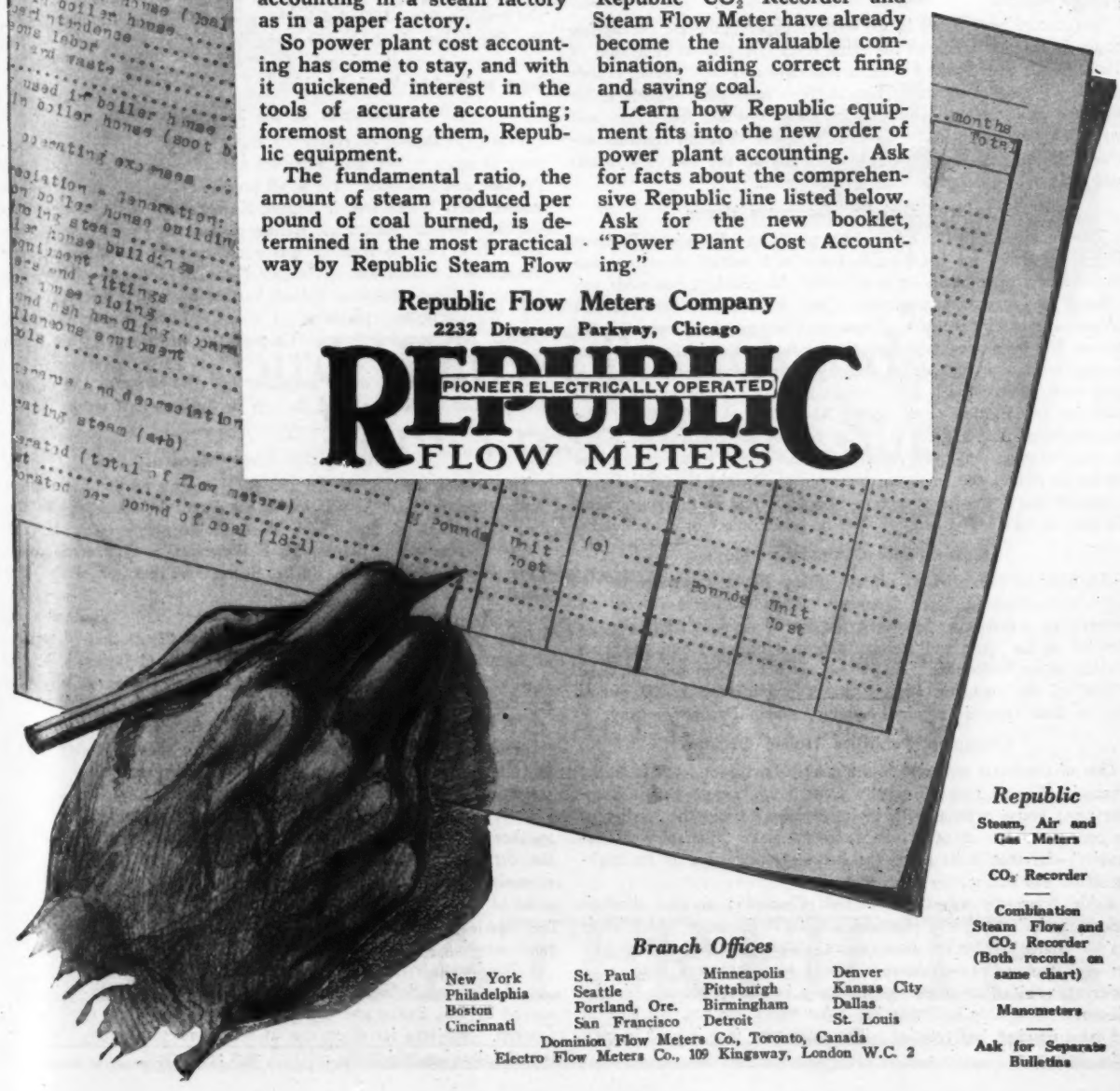

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# BETTER FEELING PERVADES THE CHICAGO PAPER MARKET

**Finer Grades of Paper Stock are Especially Looking Up—Dwight Brothers Paper Co. Bestows Substantial Bonus on Its Employees—Seaman Paper Co. Forced to Look for New Quarters—House Organ of Champion Coated Paper Co. is Meritorious One—Messinger Paper Co. Getting Good Results from Advertising Campaign—Fair Demand for Roofing Stock and Prices Hold Firm.**

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., November 19, 1923.—A much better feeling pervades the Chicago market this week than last especially in the finer grades of paper stock. Prices on standard staples have changed very little. The range between minimum and maximum prices on coated book has been decreased, the maximum price having receded slightly.

No change is reported in the coarser paper branches. Wrapping paper is running along at the same level. A general reduction of No. 1 Kraft was put into effect a few days ago, well-known brands having dropped to six cents flat. Others have gone slightly under that and as for No. 2 Kraft, advice was given out that "you could write your own figures." The paper board situation remains unchanged. Buying has been very light during the past few weeks and it is not expected to quicken very soon.

### President Dwight Distributes Bonus

The departure of W. E. Dwight, president of Dwight Brothers Paper Company, for his Florida home each winter about the latter part of November, is an event which Mr. Dwight has made significant to every last employee. Just prior to his leaving, this progressive chief executive of one of Chicago's best known paper houses, has been accustomed to distributing a cash bonus on a percentage basis to everybody on the payroll, none excluded. And this year was no exception. Mr. Dwight has made preparations to depart for his Florida home about November 24. The other day he announced that a bonus of 15 per cent of the yearly wage would be paid to each employee right down the line. This practice has tended to reduce the employee turnover of Dwight Brothers Paper Company and fosters a greater personal interest in the concern on the part of each individual, whether he be an officer or a mail clerk.

### Seaman Paper Company to Move

Addition of the products of the Eddy Paper Company to the sales of the Seaman Paper Company has made it necessary for the concern to seek larger quarters for its operations. The present location at La Salle and Adams streets is crowded and daily becoming more inadequate. As yet no place has been selected. An official of the company advises that approximately 12,000 square feet of floor space is required by the Seaman Paper Company.

### Champion Publishes House Organ

One of the finest products of the printers' art goes forth from the Champion Coated Paper Company as its house organ. But it is unlike most house organs, both in its appearance and the quality of its contents. And no effort is spared to make "Champion Monographs"—for that is its name—as strikingly attractive as the highest class publication.

Aside from the advertising which Champion secures through "Monographs" there is a practical side to its issuance which benefits the trade distributing these papers. The cover and inside stock for each number are changed regularly so that actual samples of different printing on these papers may be in the hands of distributors. Not only halftones but color plates are run, not both in the same number, but rotating. The same type face is used in each issue, however.

"Champion Monographs" is exactly six by nine inches in size over all with the printing surface on pages inside 4½ inches wide by 7 inches deep. The cover stock is quite frequently tinted and inside the front cover every time is a single paragraph giving the exact name of the cover and also the inside stock. The latest copy deals with "Treasure Chests, Safes and Strong Rooms." Illustrations and methods for safe-keeping articles of value were outlined from the time of the stone age up to the present.

### Roofing Stock Has Fair Demand

Roofing stock at the present time is experiencing a fair demand. Prices are holding rather firm at the level that has maintained for the past several weeks. It is reported in some instances that stock is selling above this figure while yet others are not able to get quite so much.

### Messinger Advertising Campaign

A somewhat extensive advertising campaign is being conducted by the Messinger Paper Company, of 180 W. Randolph street. The advertising is decidedly effective, according to report, and has resulted in bringing a good share of business from this territory to the organization. Included in the program is a handsome calendar, the circulation of which will begin shortly for the new year. This company is going strong under the able management of H. A. Washburn, assisted by W. J. Blackley.

### Activities of the Paper Trade

Frank J. Walsh, secretary of the Douglas Wray Paper Company is again at his desk after his extended pleasure trip through the east and southeast. He is all prepared for the winter business season. Mr. Walsh visited Boston, New York, Atlantic City, Philadelphia, Norfolk, Richmond, Baltimore, and Washington. The trip from New York to Norfolk was made by boat down the Atlantic Coast. Mr. Walsh was accompanied by Mrs. Walsh. Both spent a week at White Sulphur Springs resting up before the return.

I. W. Carpenter, president of the Carpenter Paper Company, Omaha, Neb., passed through Chicago the other day on his return trip from the east.

George Johnston, sales manager of the Western Newspaper Union, Omaha, Neb., visited the city on business last week.

## Connecticut Cost Meeting

The second meeting of the 1923-1924 season of the Connecticut Valley Branch, Cost Association of the Paper Industry was held at the Highland Hotel, Springfield, Mass., on Tuesday evening, Nov 13.

After an enjoyable dinner, M. F. Peterson, as chairman, turned the meeting over to T. J. Burke, Secretary-Treasurer of the National Cost Association.

Mr. Burke outlined the plans and speakers of the National Convention to be held at Philadelphia, November 22, 23, and 24, urging as many as possible to attend. He then introduced James A. Reilly, first vice-president of the National Cost Association as the first speaker of the evening.

Mr. Reilly spoke briefly concerning the future of costs as he interpreted the situation, stating that the cost men of today would find it necessary to change their ideas concerning costs if they were to keep up with the changing conditions.

Following Mr. Reilly's talk, Mr. Burke introduced as the main speaker of the evening, Colonel B. A. Franklin, vice-president of the Strathmore Paper Company. Col. Franklin spoke from the executive's standpoint, urging the cost accountant to broaden his point of view—not to view reports as masses of figures, but to look on them as pictures portraying the facts existing and interpreting their meaning in an efficient manner.

Following Col. Franklin's talk, a general discussion of the methods of applying Selling and Administrative Expenses to costs was opened by Mr. Burke and each man stated the method used by his concern. Subjects for discussion at future meetings were also presented following which the meeting was adjourned.

# The Bird Water Filter Guards Your Fresh Water Supply

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A Bird Water Filter, installed independently or ahead of the sand filters, does this work at a minimum cost.

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# BIRD WATER FILTER

# TORONTO TRADE IN BETTER MOOD BECAUSE OF PICK-UP

**Paper Business Shows General Improvement But Opinions Differ as to Whether Recovery Is Temporary or Permanent—Royal Commission Finishes Toronto Hearings and Goes to Cochrane—Major Hartt Establishing Closer Communication Between Outposts and Department of Lands and Forests—Encouraging Decrease in Loss by Forest Fires—Kilgour Factory Opens in January.**

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, November 19, 1923.—Business in the paper line picked up considerably during the past week in wrapping, kraft and other lines, but whether the recovery is temporary or permanent is not definitely known. Jobbers were, however, in a better mood than they have been for some time past. The demand for news print keeps up well and some contracts are being placed for the first quarter of next year at the present prices of $75 per ton. The outlook is considered good.

Manufacturing stationers still report that trade is dull and customers have been chary about buying Christmas specialties heavily in advance. Board mills are quiet and are looking for orders. Some of them are running on short time and paper box plants are making only stock lines in an effort to keep their places of business going. In the rag and paper stock arena there is not a great deal doing, as the mills are not buying in any large quantities. There is a fair call for manila rope. In news and scrap there have been some further reductions in price as well as in kraft manila, white blank news and soft white book shavings. Toilet and tissue mills are fairly well employed. Pulp prices continue about the same, $44 being the ruling figure for ground wood at the mill, with the demand characterized as fair. Other lines of pulp are weaker.

### The Pulpwood Commission Hearing

The past week was an interesting one in pulp and paper circles in Toronto owing to the sittings of the Royal Commission on Pulpwood. Several witnesses were examined and practically all of them were against any embargo being placed on shipments across the border. Ontario has long heard the cry that pulpwood must be conserved and that an embargo was the only method. It was pointed out that such a procedure would cause a hardship to settlers in Northern Ontario, from whose homestead lands alone pulpwood can be exported. Migration of settlers would follow an embargo. Pulpwood is the first crop of the settler and its disposal helps him to finance his other operations. There is little demand for poplar at home and the bulk of this wood is sent across the line. The governing factor in fixing the price paid farmers and settlers for pulpwood was what was offered by American buyers. One witness said that, as for pulpwood lands held by companies on lease from the Crown, it was the general practice to conserve these supplies and buy from the farmers. As a consequence, it would be many years before there would be any serious competition between pulp and paper companies in Northern Ontario for Crown land pulp areas. The Pulpwood Commission will not have any more sessions until after the Christmas holidays, when they will hold hearings at Cochrane and North Bay before proceeding to the Pacific Coast to take evidence.

### Major Hartt Outlines New Duties

Major J. I. Hartt, who was appointed superintendent of Crown Timber Agencies in Ontario, has been visiting different points and effecting a closer line of communication between the outposts and Department of Lands and Forests. His attention will be given largely to natural reforestation and conservation, by the administration taking over large areas, which are already planted and well under way toward developing a new forest, which will be ready for a new crop in a few years. Major Hartt says that he can see where white pine stands in Ontario can, by careful watching and waiting, be reproduced.

### Timber Supplies on the Toboggan

At a recent session of the Ontario Associated Boards of Trade and the Chamber of Commerce, which was held in Hamilton, Dr. C. D. Howe, dean of the Faculty of Forestry, University of Toronto, gave a stirring address in which he said that Ontario was on the toboggan as regards forest products. He said the people were getting what they deserved in having to pay big prices for pine lumber imported from the United States or transported from British Columbia by expensive rail haulage. He added that the responsibility rested with the organized business interests because they had not been farsighted enough to see that their governments had pursued a proper forestry policy.

### Forest Fires Are Growing Less

At the sitting of the Pulpwood Commission in Toronto, E. P. Heaton, provincial fire marshal, produced figures showing that forest fires of late have been fewer than they were a few years ago. Mr. Heaton gave the following figures: For 1920, 31 fires, loss $217,000; for 1921, 38 fires, loss $195,000; for 1922, exclusive of northern Ontario, 8 fires, loss $80,000. This year the record was unusual with 8 fires to date and a loss of only $7,280. "No living man can tell you what the loss on pulpwood is for the simple reason that in every forest or bush fire the settler has a small pile that is consumed and never insured and the obtaining of accurate figures is, therefore, impossible."

### New Factory Will Open in January

Good progress is being made on the construction of the new paper bag factory of Kilgour Brothers, of Toronto, at Windsor Mills, Que., and it is expected that the plant will be ready for operation early in January. The paper bag making department of Kilgour Brothers will then be removed from Toronto to Windsor Mills but the firm will continue its paper box activities in Toronto.

### Notes and Jottings of the Industry

Harry P. Reid, superintendent of the paper box plant of Kilgour Brothers, Toronto, has returned from spending a holiday at his old home in Peterborough, Ont.

W. H. Sherriff, of the Hodge-Sherriff Paper Company, Toronto, has returned from an extended business trip to the western provinces, going as far as the Pacific Coast. He reports a growing demand for kraft paper in the western cities.

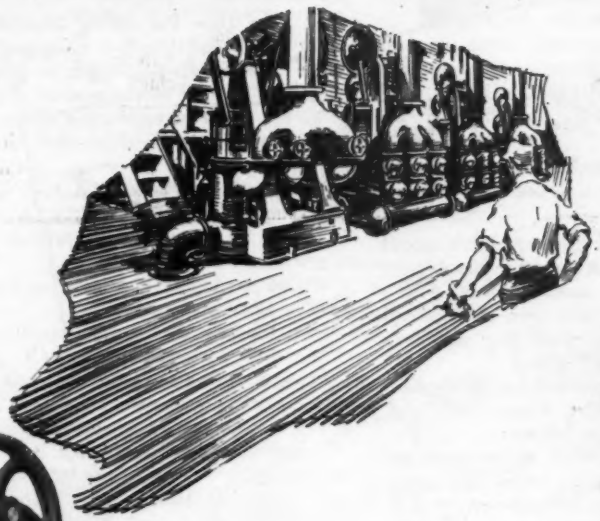
A. E. H. Fair, who is a graduate in chemical engineering of Toronto University, and has been for some time on the staff of the Lincoln Mills, Merrilton, Ont., has been promoted to the position of superintendent of the Lybster plant of the company and has entered upon his new duties.

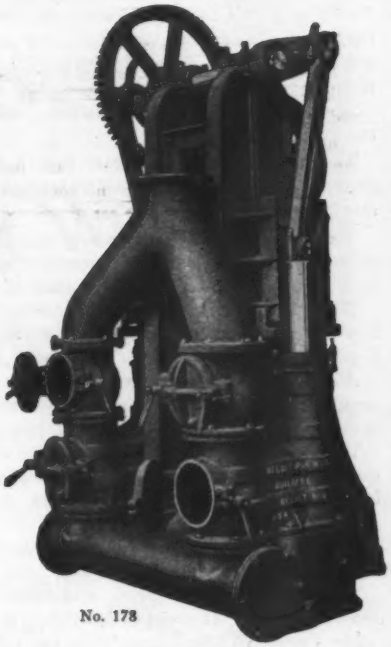
A. P. Costigane, Safety Engineer of the Ontario Pulp and Paper Makers' Safety Association, has returned from a visit to the paper mills at Espanola, Sturgeon Falls and Sault Ste. Marie. He reports a growing interest among both executives and employes in safety work and that many new protective appliance have been installed in the plants with this end in view. Much interest is also being taken in the matter of training apprentices.

Col. Thomas Gibson, vice-president of the Spanish River Pulp and Paper Mills, is ill at his home in Toronto but is making satisfactory progress toward recovery.

Among the callers on the paper trade in Toronto during the past week were Rowland Ford, Jr., vice-president of Rowland Ford & Son, Portneuf, Que., manufacturers of felt and sheathing papers; Thomas Dunn, of Winnipeg, representing the Canadian Paperboard Company; C. DeForest Coutts, of the Whiting Paper Company, Holyoke, Mass., and J. McQueen, of the Wrenn Paper Company, Middletown, Ohio.

# The Efficiency Pump for Paper Mills





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BELOIT pumps are called "heavy duty" pumps because they are sturdy and strong. They are built for continuous 24-hour service and are gluttons for hard, steady work. They are regarded as the present-day *efficiency* pump for paper mills.

On our triplex pumps you will find forged steel crank shafts instead of cast steel. Our locomotive type connecting rod (regular equipment on our heavy-duty pumps) takes up the wear on crank and wrist pins while pump is in operation. The self-aligning feature prevents undue strain on cranks or frames.

If ever a part does become broken or worn out after years of hard usage, their construction is so handy that the repair can be effected easily and quickly, without the necessity of buying a considerable portion of a new pump.

Thousands of experienced board makers the world over know that Beloit pumps "deliver the goods."

*It will pay you to turn first to BELOIT.*

**Beloit Iron Works** **Beloit, Wis., U. S. A.**

**Established 1858**

# BRINGING ABOUT STANDARDIZATION IN INDUSTRY

(*Continued from page 28*)

have made considerable progress toward simplification and standardization, especially in the reduction of varieties and sizes and grading.

Standardization has been brought about in association activities in a number of different ways—personal contact—educational campaigns to show members the saving that would be accomplished if mills can run to stock instead of to special orders—co-operation with other associations, or technical and engineering societies, the Department of Commerce, Bureau of Simplified Practice, etc. In the Portland Cement Association, for example, single standard cement specifications were adopted in 1922 through co-operation with technical and engineering societies, and membership in the association is open to those making cement according to the specifications.

The second question was "Has your Association a standing committee or special bureau for investigating or carrying forward standardization activities?"

Thirty-five out of 53 associations reporting have either a special committee or the Executive Committee, or the entire membership as a group have taken up the question of standardization.

The third question was "What results have been accomplished in your industry along lines of either standardization or simplification?"

About 75% of the 66 associations reporting have standardized or simplified their product in part or wholly. Some of the more striking examples of accomplishments are as follows:

The International Association of Milk Dealers has accomplished simplification of sanitary fittings in milk, ice cream and butter factories and are working to standardize size and cap seats of milk bottles.

The National Association of Upholstered Furniture Dealers has accomplished adoption of 3 sizes in beds, both wood and metal.

The National Paving Brick Manufacturers Association has reduced the number of varieties from 66 to 6.

The Portland Cement Association has achieved a single standard of specifications for cement.

Refractories Manufacturers Association has reduced 100 varieties to 25 standard shapes—extras cost more. In the first place, members were sent drawings of all shapes being manufactured then all shapes were eliminated which were not made by two or more manufacturers.

Rubber Association of America has standardized dimensions and limited number of sizes and tires. Standardized mechanical rubber goods through standardization of specifications used by railroads, oil companies and other buyers of hose, belting, etc. Also standardization of sizes and size designations by those who produce druggists' and hospital sanitary goods.

Standard Container Manufacturers Associations have adopted "Standard Containers" and work with manufacturers to standardize crates, boxes, etc., and also with railroads and express companies. In the railroads of the Southeast special tariffs and lower freight rates allowed on standard containers. Economic gain also in saving lumber and forests and in weight transported.

Enameled Sanitary Ware Manufacturers Association. This association seems far in advance of most of the other associations in the way of simplification. They give a formidable list of the elimination of patterns, types and sizes, running into hundreds. One of the leading manufacturers, when issuing a new catalog, found that he could eliminate 40 pages illustrations and data.

Associated Metal Lath Manufacturers. This organization about to reduce 150 styles and finishes to 10 weights with a Comparatively few finishes.

Casket Manufacturers of America. Average reduction in lines amounts to a total of at least 40% of the old number carried.

National Retail Hardware Association. So far, largely the stimulation of interest, which has resulted in action by a number of manufacturers individually. The wire fence schedule is the outstanding simplification accomplishment in the hardware industry. Effective September 1st, 87½% of the styles and 93 4/10% of the packages, but representing only 6 3/10% of the products, will be discontinued.

### How Far Should Standardization Go?

The fourth question "To what extent do you consider it advisable to carry standardization in your industry?"

Extracts of some of the answers from associations:

"To the extent of eliminating all excess varieties."

"To farthest point possible—until business is lost because essentials are not supplied."

"To fullest extent possible."

"No limitation."

"To any limit that does not preclude possibility of development of new uses for product.

"Should standardize raw materials and such products as magazines, books and catalogues, etc."

"In so far as it does not limit production or competition."

"Should be continued indefinitely."

"Going through a sort of a standardization craze. If it goes too far we will all be dressed alike, look alike, etc., and where will we get off with the ladies who are great on style."

"Simplification is important but standardization does away with individuality."

"Possibility or eliminating initiative if product becomes too standardized."

"Must be followed up very carefully. Should not limit individual effort, as expressed in ideas. Should not interfere with variety where variety is desirable. Should not set up arbitrary standards where diversity would add to convenience or usefulness, etc."

The fifth question, "Will there be harmful results of any kind from standardization efforts in your industry?"

About 75% of those answering the question say "no."

One man says "Originality in design must not be impeded by standardization of design."

Another, "Must not go so far as to do away with individuality of a mill's product, and thus deprive the market of a reasonable variety and the initiative which results from pride in a product."

Again, "Artistic element in some industries might be lessened."

The sixth question, "To what extent are you co-operating with governmental agencies in standardization?"

At least a half of those reporting have co-operated to some extent with some governmental agency, mostly with the Department of Commerce, the Bureau of Standards, and the Bureau of Simplified Practice; several with the U. S. Chamber of Commerce, the U. S. Forest Products Laboratory. Some have found the government helpful especially in giving an official tone to actions.

Only one association stated that it had absolutely no use for the help of the U. S. Department of Commerce. This association states "Government Departments of no service excepting Forest Products Laboratory at Madison."

The seventh question, "Should standardization in an industry come through efforts of an association or other agency, or through assistance from the government?"

### Industry Should Take Initiative

Answers are almost unanimous in saying that the initiative should be taken by the association directly or by the industry. Most think associations should co-operate with governmental agencies.

(*Continued on page 40*)

# WATCH for Our Famous Products Series which Starts Next Week in The Paper Trade Journal

YOU will be vitally concerned in facts brought out in this series. Suggestions will be given that will mean, if followed, a better product for you at a lower cost of production. Read the "***Famous Products Series.***" It will mean dollars to you.

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# PHILADELPHIA CONDITIONS NOW REVERSING THEMSELVES

## Advances Come to Take the Place of Declines Reported a Week Ago—Special Committee Appointed by Fine Paper Division Makes Report but Avoids Publicity—President Considine of Paper House of Pennsylvania Goes to Study Paper Conditions in Europe—Raymond and McNutt Co. Launches Envelope Department—Franklin Paper Co. Puts New Products on Market.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., November 20, 1923.—Though the sensation of a week ago was the drop, in one case of but a half a cent but in several others of three quarters of a cent in No. 1 Kraft, there came about during the week almost a complete reversal of that situation and development of a belief in trade circles that advances covering the decline are imminent. When the drop came many thought that it was of permanent character and they felt sure too that No. 2 Kraft and others in the coarse line would ease off sympathetically. This week, however, several reports quite well defined were in circulation, one of them being that the reduction of a week ago was to be restored and the other that an important factor in the Kraft situation which had maintained its prices at about 7 cents was on the eve of advancing. If these reports are realized the trade will be well satisfied. Sales in the coarse paper market during the week were quite restricted and were of a spotty character and the week, broken as it was by a holiday more or less generally observed, was not an active one. Values were quite steadily maintained all along the line so far as quotations were concerned.

### Committees Make Reports

The sub-committees recently appointed by the fine paper division of the Philadelphia Paper Trade to consider various matters of trade interest brought before it, one of the more important being uniformity of action with regard to prepayment of freights, and the others relating to credits and allied interests, submitted a report at a meeting of the division held on Thursday afternoon of last week. The session as are all those of the division, was executive and the obligation of silence was imposed on all the members.

### Norbert Considine Goes to Europe

With the departure for Europe during the week of President Norbert A. Considine of the Paper House of Pennsylvania there may be opened up a new avenue of activity for this rapidly growing establishment which in recent months has done much in the line of developing an import business. President Considine has made several trips abroad but all the previous ones were to Finland, Sweden, Denmark and the Scandinavian Peninsula generally. The present trip to France, Germany and possibly Austria is the first one of its kind he has ever undertaken. Its object is to make a first hand study of paper making conditions in those countries with a view to developing an import business from them if the conditions are satisfactory.

### Flag Raising at New Home

Flag raising on Armistice Day on the roof of the mammoth new steel and concrete building at Fifth, Willow, Randolph and Callowhill streets, was the first step in the occupancy of that structure by the Paper Manufacturers Company, now located at 526-528 Cherry streets. The firm is now in course of removal and it expects completely to be installed by the end of the year. During the past week 100 carloads of coarse paper and various kinds of converting papers were hauled into the new building and these are to be followed by other large shipments, the new structure having a really tremendous capacity. It is structurally complete but there is being rushed forward the details of appointment and equipment. In addition to the many units for manufacture of small roll products in the firm's old building, there will be added two slitting machines and other equipment. The new structure represents an expenditure of over $500,000 and contains more than 150,000 square feet of space on its six floors and basement.

### Install Envelope Department

An important development is just being launched by the Raymond and McNutt Company, 826 Walnut street, one of the five Strathmore distributors in the city. It is a Commercial Envelope Department, supplementing and expanding the social and announcement envelopes formerly carried and it has been placed under an authority on the subject, Norman Jenkins, who for a short time recently was connected with the D. L. Ward Company, but for several years previously was at the head of the Envelope Department of Riegel & Co. Mr. Jenkins, however, is a practical envelope man, having had 15 years' experience in this specialized line of the paper industry. He was for many years associated with the United States Envelope Company in both its manufacturing department and as traveling representative.

### Franklin Company's New Product

Announcement is made by the Franklin Paper Company, 810 Sansom street, of the perfection and marketing of a new paper product, the Franklin Trunk Fibre, used in the manufacture of wardrobe trunks taking the place of leather and vulcanized fibres. Claim is made for the new product that it is ten per cent lighter than the lightest of vulcanized fibres of equal strength; that it costs $120 less than fibres per ton; and that it is water proof and requires therefore but one coat of paint or enamel for its final preparation for use. Its flexibility makes it easier converted and adaptable to more uses. There is also being marketed a specialty of the company known as the Frankot Leather Fibre in heavy and light weight grades, a substitute for leathers, cloth and imitation leathers.

### Improvement in Moorehouse Paper Co.

Reconstruction of the 66-inch machine in the paper mill of the R. T. Moorehouse Company, 2655 Bridge street, has enabled it to enter into the manufacture of colored papers ranging from 16 to 60 inches and of any length and at a capacity of 12 tons per day. The Moorehouse Company recently has been developing its line of papers for color printing particularly for transfers and posters. One of its developed lines is the peculiar paper used by the Philadelphia Rapid Transit Company for printing in its own plant at 8th and Dauphin streets of its strip carfare tickets.

### News Notes of General Interest

Succeeding to the vacancy caused by the resignation of Joseph Maerz, who for over twenty years visited the paper box trade for A. S. Datz and Son and its predecessor Datz and Matthias, there has been appointed Joseph Hedges who previously looked after State business. Mr. Hedges will for the time being at least confine his visits to the Philadelphia and nearby trade.

E. Latimer, Jr., 126 N. 4th street, is actively pushing the manufacture of paper bag specialties particularly for the millinery trade and of unique designs, mostly in striped papers. The second floor of his paper warehouse is being given over to both paper bag manufacturing and printing.

Dietrich Conrad has returned to his activities with the D. L. Ward Company, after an enforced absence due to an infected lip. Some three weeks ago a slight abrasion was noted. Infection manifested itself and on several occasions he had to subject himself to the knife.

Entirely recovered from recent illness and carrying his four score year and four very lightly indeed, the venerable S. S. Shryock, head of Shryock Brothers, 924 Cherry street, is now reappearing at his place of business.

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# GOVERNMENT PAPER BIDS AND AWARDS

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., November 21, 1923.—The Government Printing Office has received the following bids on 500,000 pounds white news print paper, basis 24 x 36—32, in 48-inch rolls, 800 pounds each, 31-inch maximum diameter: Reese & Reese, $.040275; Maurice O'Meara Company, $.0366; Canfield Paper Company, $.0405; Import Paper Company, $.055; Whitaker Paper Company, $.0434; Beaver Pulp and Paper Company, $.0412; R. P. Andrews Paper Company, $.0422; The Wright Paper Company, $.0412; Dobler & Mudge, $.0406; International, $.0425; Tidewater, $.0425.

On 15,000 pounds white antique printing paper, 25 x 38—50: Bryant Paper Company, $.0812 per pound; R. P. Andrews, $.0769; Dobler & Mudge, $.07; Old Dominion, $.0697; Whitaker, $.0699; Allied Paper Mills, $.0675; Reese & Reese, $.0734 (bundles), $.0759 (cases); Kalamazoo, $.0775; The Broderick, $.0695; Barton, Duer & Koch, $.069; Maurice O'Meara Company, $.0705, f. o. b. Washington; International, $.0719; American Writing Paper, $.0759; American Writing Paper Company, $.0759; R. A. Cauthorne, $.076, f. o. b. Washington; Coy, Disbrow & Co., Inc., $.07725, f. o. b. Washington.

Bids were also received on 9,600 pounds smooth green cover paper, 20 x 25—48, flat, and 2,400 pounds green, 2,400 pounds brown; 4,800 pounds tea, 16,800 pounds rough cover paper, sample B, 20 x 25—48, flat; 9,600 pounds Gobelin Blue, 2,400 pounds moss green, 4,800 pounds sage: Graham Paper Company, $.11 and $.115; Old Dominion, $.0999 and $.1049; Knowlton Brothers, $.105, $.10, $.10375, $.11375, $.10875; F. T. Parsons, $.099 and $.104; Thomas Barrett & Sons, $.105 and $.11; R. P. Andrews, $.113 and $.103, $.1024, $.113 and $.1024; Mathers Lamm, $.099 and $.1039; Dobler & Mudge, $.10, $1.05; Whitaker Paper Company, $.0919 and $.1059; Reese & Reese, $.09874 and $.1035; Broderick Paper Company, $.0985, $.1031.

### Many Paper Awards

The Purchasing Officer of the Government Printing Office has just announced a large number of paper awards.

The R. P. Andrews Paper Company will furnish 225 pounds (50 reams) of 19 x 24—4½ facing stereo tissue paper at $3.25 per ream, bids for which were opened on October 12.

Barton, Duer & Koch will furnish 29,150 pounds (600 reams) of various sizes white ledger paper at 26¼ cents per pound, and the Carew Manufacturing Company will furnish 30,150 pounds (300 reams) of 20½ x 30½—100½ No. 60 heavy white ledger paper at $.265 per pound. Knowlton Brothers will furnish 7,260 pounds (150 reams) 20 x 25—48 rough suede cover paper at $.09875 per pound. The Old Dominion Company will furnish 10,300 pounds (200 reams) of 30 x 40—51½ of No. 16 lithograph finish map paper at $.16349 per pound. Bids for these items were opened on October 22.

The R. P. Andrews Paper Company will furnish 36,000 pounds of calendered manila tag board, 24-inch rolls, at $.076 pound, and the Whitaker Paper Company will furnish 3,600 (100 reams of 21 x 32—36, No. 20, blue sulphite writing paper at 8¼ cents per pound, and the same firm will also furnish 78,000 (2,000 reams) of 24 x 38—39, No. 16, yellow sulphite writing paper at 8¼ cents per pound. Bids for these items were opened on October 24. The Kalamazoo Paper Company will furnish 300,000 pounds (855 rolls) of white machine finish printing paper at $.0665 per pound. The same firm will also furnish 15,400 (200 reams) of 24 x 38—77 double coated book paper at $.087. The R. P. Andrews Paper Company will furnish 40,000 pounds of white sulphite writing paper in 17-inch rolls, at $.0689 per pound; the Champion Fiber Company will furnish 36,000 pounds of same, 18-inch rolls, at $.0744 per pound, and the R. P. Andrews Company will furnish 36,000 pounds in 21-inch rolls at $.0709. The Allied Paper Mills will furnish 17,600 pounds (200 reams) of 29 x 41—88 single coated book paper at $.08435 per pound. Barton, Duer & Koch will furnish 3,000 pounds of oiled manila tympan paper in 48-inch rolls at $.07875 per pound, and Reese & Reese will furnish 1,800 pounds (100 reams) of 22 x 34—18 No. 9 blue glazed bond paper at $.2395 per pound. Bids for these items were opened on October 29.

The R. A. Cauthorne Paper Company will furnish 37,200 pounds (500 reams) of various sizes of kraft wrapping paper at $.0589 per pound, bids for which were opened on October 31.

The Champion Coated Paper Company will furnish 340,000 pounds (10,000 reams) of 24 x 38—34 white machine finished paper at $.0687 per pound and same firm will also furnish 400,000 pounds of the same in 21-inch rolls at $.0648 per pound. The Champion Fibre Company will furnish 36,000 pounds of white sulphite writing paper in 21-inch rolls at $.0738, and the R. P. Andrews Paper Company will furnish 144,000 pounds (4,000 reams) of the same, 21 x 32—36, at $.0683 per pound. Bids for these items were opened on November 2.

The R. P. Andrews Paper Company will also furnish 59,000 pounds of No. 20 various colored sulphite writing paper in 17-inch rolls at $.0738, bids for which were opened on November 7.

The Printing Office will receive bids on November 28 for 100,000 pounds of mellon, pink and yellow bristol board in 20-inch rolls, and bids will also be received on the same date for 56,100 pounds (550 reams) of 21 x 31—102 bristol board.

### Recent Bids Received

The Printing Office has received the following bids for 10,000, 2¼ x 3⅝, O. S. G.: R. Carter Ballantyne, $2.05 per M; R. P. Andrews, $6.18; The Whitaker Paper Company, $5.69; Union Envelope Company, $3.75; Dobler & Mudge, $2.25; U. S. Envelope Company, $1.70. Also bids were received on 2,000,000 pounds U. S. postal card cream bristol board, basis 22½ x 28½—104, in rolls 44½ inches wide, not to exceed 32-inch diameter: The Champion Fibre Company, $.744 per pound; The Champion Coated Paper Company, $.0709 f. o. b. Washington and $.07115 delivered; American Writing Paper Company, $.0709; Old Dominion, $.076292 (500,000 pounds); Dill & Collins, $.0721; R. P. Andrews Paper Company, $.0668 (1,000,000 pounds).

Bids were also received for 10,000 pounds white laid antique printing paper, deckle edge, machine finish, 20½ x 29—50 to the ream of 500 sheets: Dobler & Mudge, $.14; Broderick Paper Company, $.14; American Writing Paper Company, $.1199; Osburn Paper Company, $.147; Whiting Patterson Company, $.1485; Barton, Duer & Koch Paper Company, $.1475; R. P. Andrews Paper Company, $.173.

## Michigan Superintendents Meet

[FROM OUR REGULAR CORRESPONDENT.]

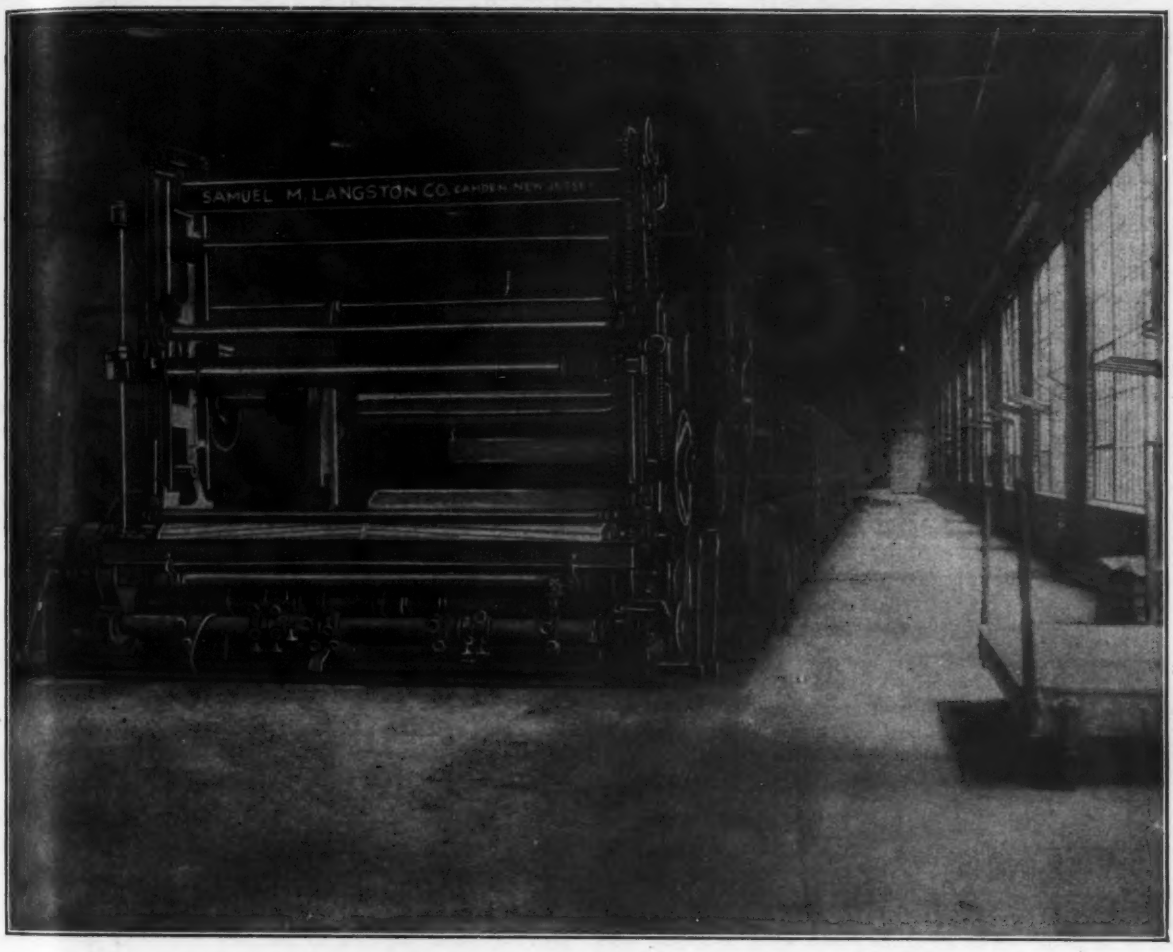
KALAMAZOO, Mich., November 17, 1923.—J. L. Williams, of the Ross Engineering Company, was the speaker at the Thursday evening meeting of the Michigan Division of the Pulp and Paper Mill Superintendents' Association. His subject was "Vapor Absorption."

It was originally planned to entertain the Board Division in Kalamazoo on that date, the board superintendents having announced they would hold their annual election here.

## Paper Conditions in Maine

[FROM OUR REGULAR CORRESPONDENT.]

BANGOR, Me., November 21, 1923.—Reports from pulpwood operators in eastern and northern Maine are to the effect that while some expect to make their usual cut, it is expected that the aggregate output will be under average.

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# BRINGING ABOUT STANDARDIZATION IN INDUSTRY

(*Continued from page 34*)

Only one association, National School Supply Association, thinks the effort should come through the government instead of the association, primarily. Some think government should help only through educational lines or in an incidental way.

In concluding comments on replies from associations, it will be of interest to refer to a very interesting statement from a secretary of one of the trade associations:

"The question comes up here as to how far it is proper for a trade association to go in pushing its slower members into efficiency. Here is a quick-witted, farsighted manufacturer who sees the opportunity which lies in simplification, and seizes it of his own notion. Naturally, he creates something of an advantage for himself. If he is a member of our association he may not look altogether favorably on our efforts to help slower thinking competitors up to his level of efficiency. I must confess a good deal of sympathy with his viewpoint. It seems to me that we have from time to time in the past dragooned into permanence and stability, individuals whom nature would have squeezed out of existence except for our help. I am not sure whether we have conferred a favor or disfavor on our members by teaching these competitors greater efficiency."

### Dangers in Standardization

As indicated above, there are so many theoretical advantages to be derived from simplification and standardization that it may be easy for an Association to lose itself in the maze of theories to the point of forgetting the real objective in standardization. It would seem as if especial care must be used in applying a gauge to measure the value of a particular piece of standardization and the extent to which standardization may be carried to advantage. This gauge or yardstick we must keep constantly in use, because it begins at one end with the idea of service and ends at the other with service. To repeat, simplification and standardization is not an end but a means to an end and there must be great discretion used in judging all of the various factors that will enter into a standardization movement in an industry with all of the results which may come from such standardization.

Production has been speeded up by eliminating types and dimensions and by standardizing performance, quality and practice, and to the extent to which these various results have been achieved we may consider the movement towards standardization, successfully or otherwise. It must be kept in mind, however, in every effort to apply standardization that industry is more than raw materials, machinery, capital and market. There is a large human factor in industry of which we are very conscious these days, and this human factor is one that cannot be handled as we handle raw materials, or machinery or the market. Standardization may easily in speeding up production take from the individual worker his initiative and the incentive for betterment. Take from the worker the joy of constructive skill, and make him but a part of a machine and you at once increase the social problems confronting an industry or a community.

While the subject of how a trade association may bring about standardization in an industry does not of itself allow of the introduction of even a brief discussion of the application of standardization in education, or any other phase of human activity, yet industry is becoming ever more dependent upon the product of the technical and the scientific school. Lessen the effectiveness and the value of the man coming from the technical or the scientific school and you immediately injure the industry for which that man may have been trained to serve.

There is danger today in attempted standardization in the educational system in this country. Force children through a curriculum worked out by men and women in a state educational department; judge the teachers by their ability to produce a finished product in this system and while you are doubtless making for economy in the way of expenditures for education, you are certainly not making for economy or efficiency in producing a man or a woman with independence of thought, initiative and an ability to apply the results of an education to the daily problems of life. Attempts at standardization in higher institutions have in numerous cases taken from those institutions educational independence so vital to the maintenance of the individuality and the vitality fundamental in the preparation of young men and women for reasonably effective and happy lives as citizens.

The institutions of higher learning in this country seem to be facing a very serious struggle if they are to maintain their educational independence and their real character. In too many colleges and universities in this country educational programs are dictated by politically appointed trustees or by boards selected not for their knowledge of sound principles of education but rather for what they may bring the institution in any one of a number of ways outside of intellectual attainment. The president of an institution, if he is an educator, not alone, but with the assistance of his faculty, should indicate educational policies.

### Bringing About Standardization

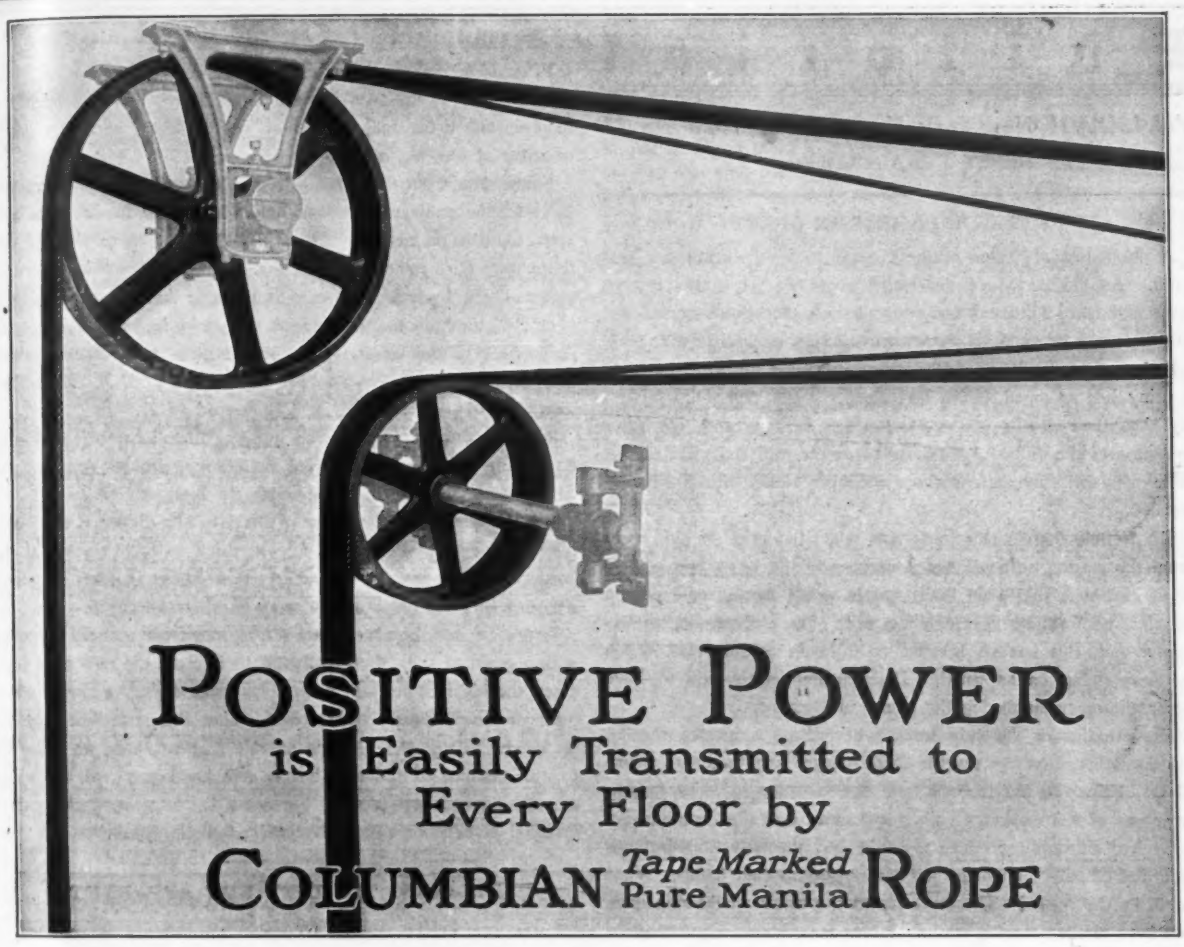
The composite answers to the questionnaire referred to above would seem to indicate that standardization in an industry can be brought about in this country in an effective way only through a Trade Association or a group of men organized for the same purpose as a trade association. In every case where standardization has been achieved in an industry it has come about as a result of an association or cooperative effort.

A study of the accomplishment of standardization among the industries of this country, simple though this accomplishment has been, has shown that it has come about through the interest of a single man or a group of key men, who have been ready to sponsor and promote the idea. An association, if it is successful in any of its activities, learns very soon the necessity of working through a key man or a group of key men for the accomplishment of results.

### Must Come from Within Industry

The general reaction of the more than 66 trade associations which replied to questionnaires as to standardization, was that standardization must come from within the industry rather than as the result of either interest or pressure on the part of a governmental bureau. The general feeling among those associations responding to questionnaire was that the governmental bureau is in a position to be of great assistance and has been of assistance, but after all the industry must stand securely on its own feet and make its own decision as to this matter of standardization, as in all affairs vital to an industry.

The increasing complexity of economic conditions at home, of industrial relations, and of competition in foreign markets demand a form of standardization that will decrease or eliminate waste, that will eliminate unnecessary types and dimensions, that will increase performance, standard of quality and improve standards of practice. If there is any doubt in the minds of any that the need of reasonable forms of standardization is great, let those doubters familiarize themselves with the wasteful methods used in the use of our natural resources, or the waste on the part of the consuming public in this country of food and clothing and the other things with which our people surround themselves that they may satisfy their demands upon life. The accomplishment of waste prevention and of thrift must come as the result of organized effort and this organized effort in industry means the effort of the trade association.

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# Editorial

Vol. LXXVII New York, November 22, 1923 No. 21

HENRY J. BERGER, Editor

## BETTER BUSINESS IN SIGHT

A possibility of better business came to view during the past week. As the period of depression continues its causes become more and more apparent and it is obvious that these causes will be eliminated by time.

Reports from various sources indicate that the ultimate consumer is using just as much, if not more, paper as he ever did. Jobbers say that their stocks are moving along with greater frequency and most of the difficulty seems to be at the mill end. Of course, those who sell raw materials are suffering along with the manufacturer.

The trouble there seems to be that when the price of pulp went down the market softened and consequently the large buyers held off in the hope that even lower prices would be the rule with a consequent immediate effect on the mills. As a correspondent has pointed out, this has no bearing on ultimate consumption, which has been going on as usual. The consumption is said to have increased somewhat during the month of October.

The situation in the pulp market, according to good authority, was brought about by several large paper manufacturers themselves. Prices to the jobbers were cut in order to force foreign paper out of the market. This would mean that the Scandinavian and other European producers would find themselves with large quantities of pulp for which they had no use on their hands. What would be the result? The mills across the water would ship their pulp over to the domestic manufacturers at an extremely low price in order to get rid of it. This is exactly what happened and it is now possible at times to buy imported pulp delivered at the local mills cheaper than the domestic grade. This manipulation may have had something to do with the unusual market situation.

It has been pointed out that freight car loadings are more than normal at this time and that this is a pretty good index of the general business situation. The weekly average loadings in 1920 were 850,923 cars, in 1921 the average was 100,000 less, and in 1923 they have averaged a million a week. For the week ending October 27 they were 1,073,965 cars. All this leads one to believe that conditions are bound to improve vastly in the paper industry.

In the statistical report of the American Paper and Pulp Association, which has not yet been completed, it is indicated that production will show an increase during the last month. It is admitted, however, that there was a considerable falling off following an increase of production during the month of August.

It is pretty well established that there is no reason for the present dullness in the paper industry except certain petty difficulties inside the trade itself which should be dissipated. The demand is there and the ability to supply it is there. All that remains is for the two ends to get together. This can only be accomplished by everyone working unselfishly for the common good and forgetting trifling differences, which are simply halting the march of events for a little while and cannot permanently delay it.

## MILLION DOLLAR INCOMES SHRINK

What is becoming of the million-dollar income?

Apparently, it has seen its best days, for the present tendency is to place less extravagant valuations on the money earning capacity of some of our big men.

Latest data from the Internal Revenue Bureau shows interesting light on the subject of million-dollar incomes. In 1914 the personal returns on net incomes of $1,000,000 or more showed that there were 60 incomes of that class. In 1915 the pulling down of million-dollar incomes became so fashionable that 120 were doing it.

In 1916 the million-dollar income was at its best and 206 reported themselves in that class. The decline since that time has been marked. They came down to 141 in 1917 and to 67 in 1918. They dropped to 33 in 1920 and in 1921 flopped to 21.

The indications are that the million-dollar income is going to be a thing of the past soon and that it will probably never again enjoy the popularity it did in 1916.

But the skeptical will wonder if there isn't "a nigger in the woodpile" somewhere. Perhaps they will think to themselves that the honesty of those making personal returns on net incomes is getting where it isn't 100 per cent any more like it was in 1916.

It can be said, however, that the figures must at least be taken with a grain of salt. Our real capitalistic class, the men who draw down the big incomes, are not apt to make a very accurate statement of their financial transactions. That this statement may not be viewed as a libel we would explain that we make no reference to our captains of industry but to our bootleggers, all of whom are making excellent incomes but none of whom are tacking their financial statements up on the public bulletin board.

## BUSINESS TIMIDITY NOT APPARENT

Confidence in the country's commercial stability is reflected in figures now available which show that, during the month of October, 701 companies with an average authorized capital of $100,000 or more were chartered under the laws of the different states. This is a very satisfactory follow-up for September when 756 corporations secured charters, representing a combined authorized capital of $651,577,390.

The most striking thing about this report is that it comes at a time when many business men are harping on the possibility of coming hard times and predicting all sorts of commercial slumps. It indicates that the pessimist is in the minority, that the average business man is optimistic and that capital deems this a good time to embark on new business enterprises. If the pessimist view was generally held there could be no such testimonial of confidence in the commercial outlook of the country and capital could not be lured to such an extent into taking business chances.

And yet the figures for October do not mean that that month has been a record-breaker. On the contrary it has simply kept up the pace to round out an active year for new corporations. Since the beginning of the year 7,435 new enterprises have been formed with a combined capitalization of $6,603,257,120. The record of a steady, consistent birth-rate for new companies is much more satisfactory than would be a year's record punctuated by slumps even though there might be a peak-month exceeding in the number of new companies, anything that 1923 has yet to offer.

# New York Trade Jottings

Warren B. Bullock, of the American Paper and Pulp Association, has returned from a trip to Washington during which he visited the Bureau of Standards.

* * *

The new bulletin of the American Paper and Pulp Association, 18 East Forty-first street, is out and contains much interesting information on the present business situation.

* * *

October production in the paper mills is reported to be a little better than that of a year ago in a report which is now under preparation at the offices of the American Paper and Pulp Association.

* * *

T. J. Burke, secretary of the Cost Association of the Paper industry, 18 East Forty-first street, is attending a meeting of the organization today and tomorrow in Philadelphia. Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, is also attending the meetings.

* * *

George W. Sisson, Jr., of the Racquette River Paper Company and former president of the American Paper and Pulp Association, visited a number of his friends in the trade this week while he was in town on his way to attend a meeting of the American Forestry Association, of which he is a director, in Washington.

## Announces Change in Prices

The Mathieson Alkali Works is announcing to its contract customers that, in view of continued weaknesses in the Bleach market, it will be unable to maintain the previously announced price of $1.50 per 100 pounds, f. o. b. Niagara Falls, as applying to carload contract shipments in standard drums for November and December, and will apply for all shipments during those months, a price of $1.25 per 100 pounds, credits being issued on past shipments.

It also announces to the trade in general, that price on contracts for twelve months for 1924, in standard drums, in carloads of Bleaching Powder, are now being offered at $1.25 per 100 pounds, f. o. b. Works, and contracts for Liquid Chlorine in tank cars at $3.25 per 100 pounds, f. o. b. Works.

## Talks About Rags and Roofing

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., November 21, 1923.—C. E. Rahr, president of the Flintkote Company of this city, speaking recently before a men's club in this city, said: "Probably you do not associate rags with roofing or the ragman with your lumberman."

According to Mr. Rahr dark rags used in making felt form the basis of all asphalt roofing. "Everybody knows," said Mr. Rahr, "that white rags are made into writing paper, but few know that the dark rags, old suits, overcoats, stockings, etc., carried away by the junk collector often go back to the very same home in the form of roofing."

# Recent Incorporations

WATERPROOF PAPER PRODUCTS, Herkimer, New York. Capital, $50,000 to $100,000.

MERCHANTS PAPER AND TWINE COMPANY, Manhattan, New York. Capital, $15,000. Incorporators: W. R. and S. Wisser and I. Goodman.

AMERICAN PAPER FORMING COMPANY, New York City, New York. Capital, $550,000 to $650,000.

PUBLICITY PAPER CORPORATION, Manhattan, New York. Capital, $30,000 to $50,000.

## Black River Regulating

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., November 21, 1923.—But one more season of tremendous economic loss on the Black River because of lack of water flow will be possible, it is said by E. S. Cullings, secretary of the Board of the Black River Regulating District. It has been decided now that the completion of the Stillwater storage reservoir will be in time to regulate the stream during the summer of 1925, although it had been expected that the 1926 summer would be the first to derive the benefits.

That a contract for the construction of the 1,000-foot dam may be obtained is indicated by the large number of contractors preparing bids. Several local contractors will submit bids, and many more from distant points are preparing to do likewise. The bids will be opened December 5.

The contract will be awarded promptly so that the work of getting heavy machinery and materials to the site may be handled over the snow this winter. An eight-mile haul is necessary, and the cost of transportation will be reduced by the use of sleds instead of summer vehicles. When spring arrives the work will be started and rushed to completion by February, 1925. The coffer dam is already in place.

The issuance of $1,000,000 in bonds was authorized and $300,000 in denominations of $1,000 have been printed and will be sold by the Comptroller as soon as certain formalities have been carried out. The highest bidder gets the issue and it is said that local banks are preparing to submit bids.

They are coupon serial bonds, payable in equal amounts from one to 50 years, $6,000 maturing each year. The bonds yield five per cent interest semi-annually and are tax exempt. It is expected that in view of the bonds being secured by preference over a tax lien on property value estimated at over $50,000,000, a substantial premium will be offered and obtained.

## Purchasing Agents Meet

[FROM OUR REGULAR CORRESPONDENT.]

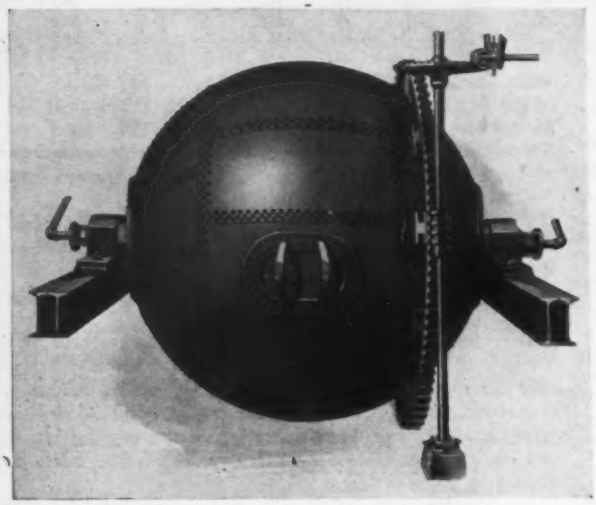
SPRINGFIELD, Mass., November 20, 1923.—The New England convention of the National Association of Purchasing Agents was held at the Highlands Hotel Tuesday last. Charles A. Steele, of Philadelphia, president of the National Association, spoke at night as well as Herbert W. Carey, of Springfield, president of the local organization; W. L. Chandler, of New York City, secretary of the National Association; L. F. Boffey, editor of *The Purchasing Agent;* and A. V. Howland, of Boston.

J. O. Holliday, Superintendent of Transportation of the New Haven lines, told the delegates that conditions had improved so much that 100 per cent service may be restored within the year. Cars in poor repair are the principal cause of trouble on the New Haven lines, Superintendent Holliday said. The condition of rolling stock, which was affected by the strike of the shopmen, is much improved, however. Other speakers during the convention were Jere Campbell, on the purchase and transportation of coal; Fred Curtis, of Holyoke, chief chemist for the American Writing Paper Company, on paper testing; F. D. Gilligan, of Hartford; D. K. Crompton, of Waterbury, Conn., and A. T. Simonds, of Springfield. Local men on the committees included George W. Mosher, Robert W. Ely and Ralph G. Waite, of Holyoke.

## Back With American Writing Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., November 20, 1923.—Announcement was made the past week that D. H. Newell and Bert Forsythe were to return to the reorganized sales force of the American Writing Paper Company. Mr. Forsythe is to be placed in charge of the Chicago office.



*Globe and Cylinder Rotary Bleaching Boilers*
*Digesters*
*Riveted Steel Tanks*
*Flumes, Smokestacks, Penstocks,*
*General Steel Plate Construction of every description.*

## Five Biggs Reasons

There are five outstanding reasons for the ability of Biggs Globe and Cylinder Rotary Bleaching Boilers to "deliver the goods."

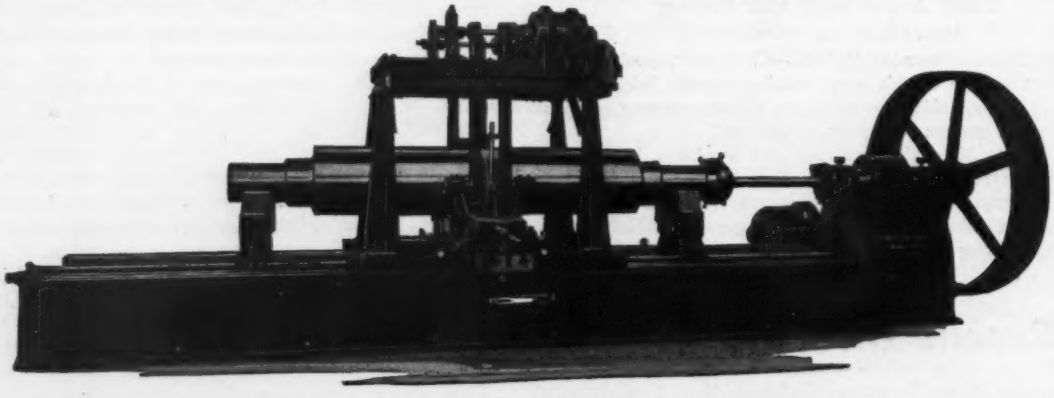
1. They are made from high quality steel plate.
2. They are made by modern, approved methods such as die pressed sections, hydraulically riveted seams, metal to metal caulking and a thorough final test.
3. Every part, on similar Boilers, is interchangeable, proving their uniformity.
4. They are laid out and built by workmen who have made Boilers of this type for 36 years.
5. They are made with a full understanding of the work required of them, and the years of service they should give.

Hundreds of mill executives have found perfect satisfaction in their installations of Biggs Rotaries, whether a single Boiler or a whole battery.

We are not overstating the case when we say that Biggs Rotaries are "THE STANDARD FOR COMPARISON."

**THE BIGGS BOILER WORKS CO.**
**AKRON 20, OHIO**

**LOBDELL** **ROLL GRINDERS** are the only machines of the kind fitted with automatic crowning device which develops a perfect crown without the use of a guide or former and repeated trying for the correct setting.



**LOBDELL** Calenders are equipped with Patent Electric Motor, Hydraulic or Ratchet Lift all operated from the floor.

**LOBDELL** Micrometer Calipers are handy and accurate.

**LOBDELL CAR WHEEL CO.** Est. 1836 **Wilmington, Del. U. S. A.**

Section of the

# Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

## ARMSTEAD MOTOR PLOUGHS THROUGH DEEP SNOW*

For the purpose of developing and building equipment to overcome what is termed the final obstacle to transportation over land, and provide the last link in the chain of automotive vehicles, the Armstead Snow Motors of the United States, Inc., of Detroit, came into existence and is now proceeding hopefully forward. The project involves the manufacture and marketing of a snow motor of unique construction, which has already given a good account of itself. It is interesting because of its close hook-up with the automobile business. Not only is its construction an adaptation of automobile design, but several well-known automobile men are engaged in directing the affairs of the concern.

MOTOR PILOTING LOG HAUL THROUGH THE SNOW

The Armstead snow motor represents an entirely new attack on the problem of surmounting deep snow and at the same time securing traction. The principle involved is that of compacting the snow under the treads of the machine by means of revolving, torpedo-like rollers, which are moved in the direction of their axes. Propulsive effort is secured by helical knives or skates, which are mounted on the drum surfaces. Practically speaking, therefore, compression of the roadway is secured by a combination of plow and runner effects, while traction is developed by applying the well-known principle of the Archimedean screw.

The particular advantage claimed for this, as contrasted with other systems is that it utilizes the compact snow for traction, the power application being absolutely uniform and practically without screw slip. Drums on opposite sides revolve in opposite directions, the helix of one set of knives being clockwise and the other counter-clockwise. This avoids any tendency to orientation and permits steering with equal facility to right or left. Opposing rotation of the drums also prevents the machine from traveling obliquely, as it would obviously tend to do if the drums turned in the same direction.

### Rudder Sled Makes Steering Possible

Steering is effected by means of a rudder sled in front, which supports just enough weight to give it the necessary directing force when deflected from the straight course. Although each side of the machine is supported on two drums, these are rigidly mounted on two tubular trunnions, so that the effective elements of the machine are not articulated, in the ordinary acceptance of the term. The possibility of employing a rigid supporting structure over a wheelbase of approximately ten feet is, of course, derived from the fact that snow is a semi-solid medium; the snow motor is designed for use in snow only, and, it is claimed, will perform in a manner which no other form of automotive vehicle can equal.

This is stoutly maintained by its projectors after an imposing record of tests and based on knowledge of the comparative performance of tractors of the wheeled and tracklaying types, special drum contrivances and trucks. In general it is believed its operation will prove more economical than any other type of vehicle at present available, when all factors are properly taken into the reckoning.

Dealing more specifically with the structure of the snow motor, the drums, which as described are built in two separate sections, are roughly egg shaped. For experimental purposes they have been constructed in various ways; the forms illustrated on an adjoining page are of aluminum. In the commercial machine, it is planned to fabricate them of pressed steel in halves, arc welded. The skates are wrapped around the drum surfaces and riveted in place.

Drums in the machines thus far constructed are 31 inches in diameter and 4 and 4½ feet long, respectively. The tread is

*From *Automobile Topics.*

TECHNICAL SECTION, PAGE 190

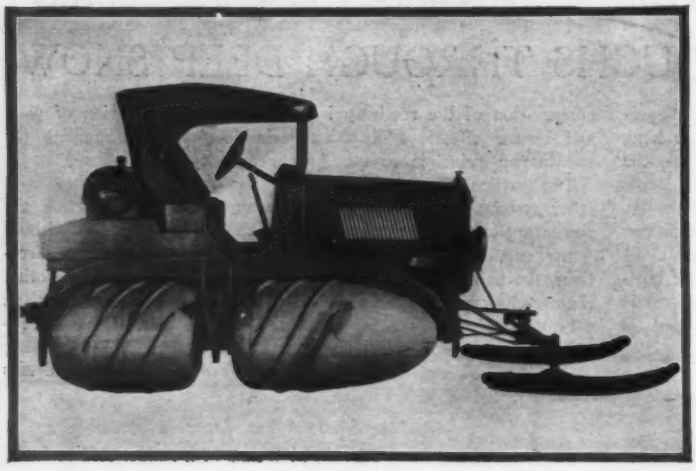
57½ inches. The flanges or skates on the drums are 1½ inches high and pitched at an angle of 29½ degrees. Three threads of the skate spirals are in contact with the snow at all times, affording adequate grip.

### Chassis and Engine Similar to Auto

The chassis, as to frame and general arrangement of the power plant follows automobile practice, in approximate terms. An exception is that no brakes are provided, as none are necessary; such is the pitch of the spirals that the machine can never coast.

Auxiliary side frame members are shaped into exaggerated spring horns at front and rear, these, together with central brackets, forming the foundation for the suspension, which is springless, but permits the drums to accommodate themselves to uneven track surfaces by a certain amount of vertical oscillation at the ends.

Power is transmitted through the propeller shaft to a distributing gearbox in the rear. Twin universal shafts from this unit



SIDE VIEW OF MOTOR WHICH IS DRIVEN IN PRACTICALLY THE SAME WAY AS AUTO

run forward to the waist, and drive the drums through chains and sprockets.

In present construction a Wisconsin truck engine of 4½ x 6-inch cylinder dimensions is used. The machine, as pictured in the accompanying illustrations, weighs 5,000 pounds. The body is such as to confine the use of the motor to tractor and road breaking purposes.

Use of the same general construction for load-carrying purposes has been considered, also, however. Another possible development that is in contemplation is that of applying the same principle as a means of converting automobiles or trucks of conventional build to use upon snow trails. But irrespective of further applications the present intention of the company is to concentrate upon one snow motor tractor of the general type described. To that end present operations are being conducted upon an exceedingly conservative scale.

The cautious methods that characterize the business in its present stage are due to its directing personnel, rather than to any lack of conviction as to the field that lies ahead of it. One of the principal stockholders is United States Senator Robert L. Owen, of Oklahoma, who is best known as the father of the Federal Reserve Act.

The company derives its name from Colonel H. H. Armstead, a mining engineer of New York, who is at present operating mining properties in northern Canada, but who came in contact with the snow motor several years ago, while he was interested in mining operations in the western United States.

Howard E. Coffin, vice-president of the Hudson Motor Car Company; William S. Knudson, vice-president in charge of operations of the Chevrolet Motor Company, and Harold H. Emmons, well-known Detroit lawyer and capitalist, are directors.

A. F. Knobloch, who likewise is widely known to the industry, occupies the post of president and general manager and is in direct charge of all development and production work. Knobloch's varied experience in the industry has carried him all the way through, with the result that he is particularly well adapted to a proposition of this character. He has built engines and other machinery, automobiles and tractors, and is accounted an expert production man.

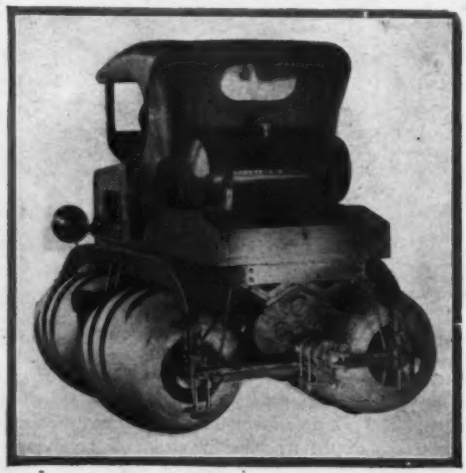
The program just now includes the construction of three machines for demonstration use during the coming winter. One is to be employed in Maine, in connection with certain large pulpwood operations in that state. Another is going into a Wisconsin lumber tract. The third will be operated in hauling out the product of a lead mine in Idaho.

### Potential Market Large and Varied

This phase of the undertaking reveals something of the nature of the contemplated market. Industrial operations of all descriptions, centering in the far north, naturally are handicapped by snow. In consequence, mining operations, to take a single instance, are often suspended from four to six months in the year. Any form of tractor capable of breaking trails in the deep snows, therefore might be the means of increasing productivity of such remotely located ventures by one-third or more.

Lines of communication in isolated quarters are also severed during the long winter months, save for the hardy adventurers who "mush" in and out with dog teams. Establishment of regular mail and transport services into far and frozen regions, therefore, is a part of the objective toward which the snow motor project is heading.

As an application less appealing to the imagination, but nearer to the experience of the average man, the snow motor is expected to prove exceedingly useful as a road breaker for winter-bound communities within the confines of civilization. When the machine traverses deep snow—and it is said it can follow anywhere a man can go on snowshoes—it



REAR VIEW SHOWING HOW VEHICLE PROPELS ITSELF

leaves two deep, smooth furrows, nicely packed, about eighteen inches wide and of approximately the standard automobile tread

gauge. To pack the snow to a hardness sufficient to permit the economical operation of ordinary passenger cars and trucks is said to be entirely feasible, and much less expensive than rolling, plowing or shoveling the snow away from the road surface, as is now done.

Various applications, as well as various developments are thus being entertained prospectively. The principal applications immediately apparent, as constituting a waiting market, however, are those having to do with the transport of raw materials from native sources that are difficult of access when storms are frequent and the snows lie deep and untracked.

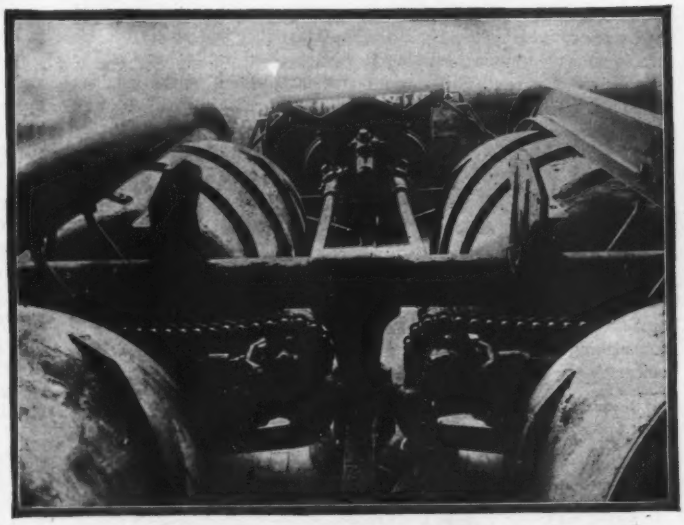
### Developed by Retired Miner

In fact, it was an intimate, personal knowledge of what a boon a conveyance of this description would be in Alaska that led F. R. Burch, retired miner, living in Seattle, Wash., to undertake the development of something of the kind. Burch, having abundant time on his hands, and some available means, set about the task, and successively assembled and built several machines. These were tested and demonstrated rather extensively, it apears, in the states of Washington and Oregon, the entire period of development running back from the present over a term of about four years.

Finally the present type was developed. Col. Armstead came into contact with it, saw it work and was impressed with its possibilities. Accordingly he acquired control of the patents, which Burch had, in the meantime, taken out. Soon afterward, Senator Owen, having mutual interests, learned of the project and straightway took hold of it, believing the snow motor to have an important bearing on the working out of some of his other plans.

Knobloch, during the war, it may be recalled, had been called to Washington from his post as vice-president of the Cleveland Tractor Co., to take charge of the fabricating end of the extensive tank manufacturing program, which the Government was just launching in the latter part of 1918. Senator Owen had known him at the time, and immediately called him into counsel when the snow motor idea enlisted his enthusiasm. The gathering together of the group which is now interested in the venture followed logically enough.

At a moving picture demonstration of the snow motor in New York, recently, representatives of large pulp and paper interests, a foreign trader who sees new possibilities in Siberia, should the machine prove up to its promise when produced on a manufacturing basis, and a number of others, witnessed the screened performance of the Armstead tractor under circumstances far less chilling than the original setting depicted. It was shown speeding away on a frozen lake at a speed said to approach 35 miles an hour, and it was shown crawling along Main Street, Ironwood, Mich., drawing nine double bobsleds loaded with 450 men and boys.



CHASSIS OF MOTOR SHOWING RUGGED CONSTRUCTION

The most convincing of the pictures was that showing the start of a test haul of logs out of the woods at the camp of the Collins Lumber Co., Pine Lake, Wis.

The load in this case was estimated to weigh in the aggregate 84 tons, and the success of the performance was held to prove beyond question the ability of the 1¼-inch helical cleats, plus the adhesion of the 5,000 pound tractor to handle any proposition that might reasonably be put up to it.

## McClellan Paper Co. Entertains

MINNEAPOLIS, Minn., November 20, 1923.—On Friday evening, November 2, something like 75 printing establishments represented by nearly 200 proprietors, superintendents and salesmen were guests of the McClellan Paper Company of Minneapolis, a division of the Butler Paper Corporations. The evening started off with a Turkey Dinner at 6:30 in the Maryland Hotel during which the diners were entertained by vaudeville numbers and orchestra.

The feature of the evening was an interesting and instructive talk on Paper by Norman Altmann, chemist for the Butler Paper Corporations supplemented by a three reel Moving Picture film entitled "The Romance of Paper."

## Permitted to Intervene

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 21, 1923.—The Interstate Commerce Commission has announced that the following firms have been permitted to intervene in Docket No. 15040, the case of the West-Cullum Paper Company, and others against the Atchison, Topeka and Santa Fe Railway Company and others: Fort Frances Pulp and Paper Company, Ltd., Hennepin Paper Company, Itasca Paper Company, Manistique Pulp and Paper Company, Minnesota and Ontario Paper Company, and Watab Paper Company.

## October Exports Heavy

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 21, 1923.—According to preliminary figures available, exports from the United States during October were valued at approximately $402,000,000, the largest monthly total since February, 1921. This is an increase of $20,000,000 over the previous month, $91,000,000 above the August export figure, and $31,000,000 or 8.4 per cent greater than exports in October, 1922.

Total exports for the ten months ending October, 1923 amounted to $3,343,000,000 an amount $135,000,000 more than the value of imports in the same period and $235,000,000 greater than exports in the corresponding period of 1922. The sharp jump in export values in September was largely due to heavier exports of crude materials for use in manufacture. However, in the total exports for the year manufactures ready for consumption and manufactures for further use in manufacturing show the greatest increases over 1922.

October imports show an even greater increase over September than exports, being valued at $303,000,000 compared with $253,000,000 in the previous month. While this figure is also above that of July and August, 1923, it is below that for each month of the first half of the year and $94,000,000 below March, 1923, the month of peak imports, but greater than any single month of 1922.

TECHNICAL SECTION, PAGE 192

# REDUCTION OF PAPER COST BY UTILIZING WASTE HEAT FROM THE PAPER MACHINE*

By J. O. Ross

The ventilation problem, which is one of the most important connected with the manufacture of paper, has developed rapidly in the last few years. The old method of determining the amount of air required in the machine room for keeping the roof dry, used to be determined by the air change. If a mill could spend considerable money on their ventilation system they would have a five minute air change, that is, the total cubical content of the machine room was figured and the air was changed every five minutes. Other mills not desiring to spend as much money, figured a ten or fifteen minute air change. This was obviously incorrect because it was not directly related to the amount of moisture that was carried off.

### Amount of Air Required

There is a certain amount of air required to create efficient conditions for drying the paper and this should be based on the amount of the moisture in the paper going to the first drier minus the amount of moisture in the finished sheet. This is the correct basis for making any computations of air requirements of a paper machine.

The necessity of obtaining the right quantity of air is obvious because all of it must be heated and if an excess amount of air is put into the machine room it means that the cost of ventilating is greater than it should be. For instance, if the outside temperature is zero it is necessary to heat the air either by means of the air conditioning system or from heating systems in the finishing or adjacent rooms, so that it will finally reach the temperature of the exhaust air going out of the stack at a temperature ranging from 90 to 140 degrees. If twice as much air is forced through the system than is necessary for efficient conditions, it means that the cost of ventilating will be practically doubled. This cost represents about one-third to one-half of the total cost of steam per ton of paper, depending upon the moisture in the sheet, outside temperature, equipment and other factors.

Every pound of air that goes out of a machine room carries heat with it. Every particle of that heat has been supplied somewhere in the mill. Bearing this in mind, it will be understood that the more air which has passed through a machine room, the more the cost of heating this air. As stated before, the volume of air is entirely dependent on the amount of water being evaporated and the amount of moisture which is being carried to the atmos-

* Summary of address given before News Print Service Bureau, Oct. 19, 1923.

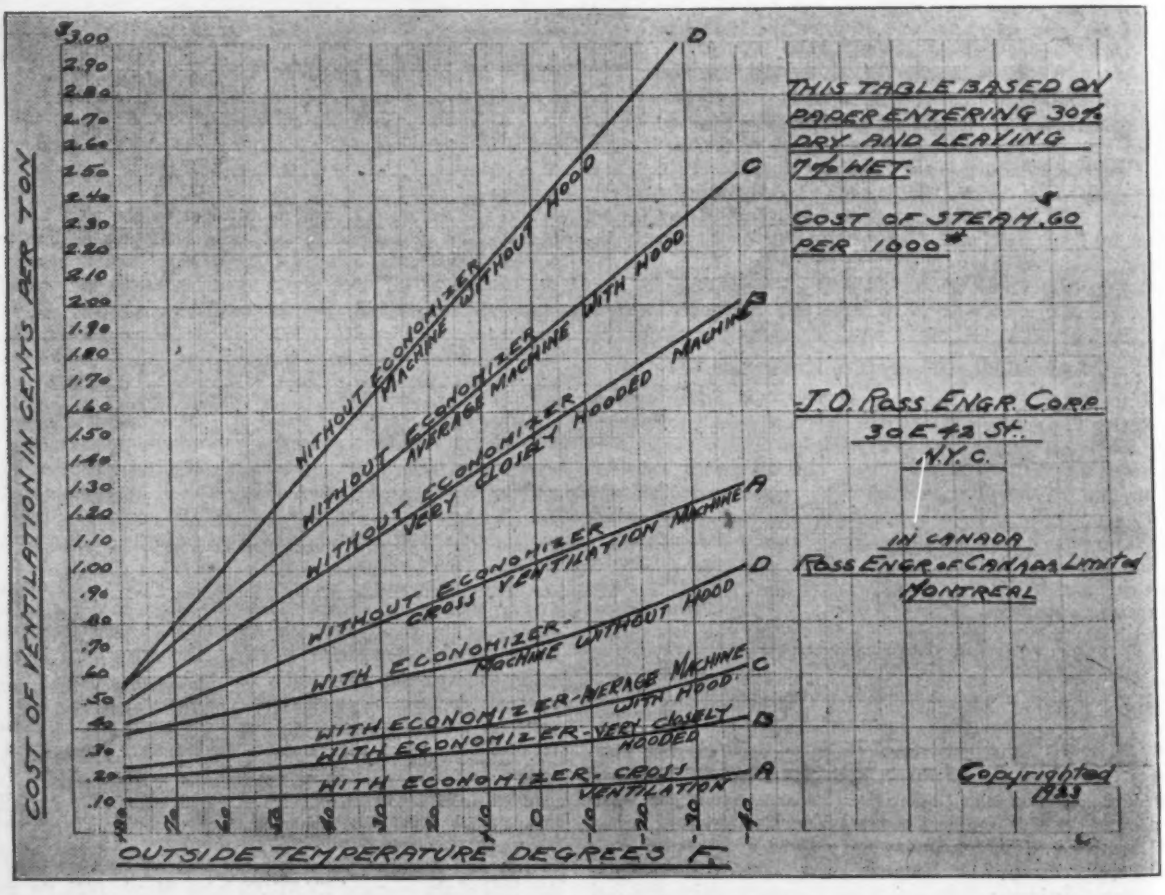

COST OF VENTILATION IN CENTS PER TON
OUTSIDE TEMPERATURE DEGREES F.
WITHOUT ECONOMIZER MACHINE WITHOUT HOOD
WITHOUT ECONOMIZER AVERAGE MACHINE WITH HOOD
WITHOUT ECONOMIZER VERY CLOSELY HOODED MACHINE
WITH ECONOMIZER CROSS VENTILATION MACHINE
WITH ECONOMIZER MACHINE WITHOUT HOOD
WITH ECONOMIZER AVERAGE MACHINE WITH HOOD
WITH ECONOMIZER VERY CLOSELY HOODED
WITH ECONOMIZER CROSS VENTILATION
THIS TABLE BASED ON PAPER ENTERING 30% DRY AND LEAVING 7% WET.
COST OF STEAM .60 PER 1000#
J.O. ROSS ENGR. CORP. 30 E 42 St. N.Y.C.
IN CANADA ROSS ENGR OF CANADA LIMITED MONTREAL
Copyrighted 1923

CHART SHOWING COST OF MACHINE ROOM VENTILATION

phere with each cubic foot of air as it passes through the ventilators.

### Temperature of Air

The temperature of air that should be admitted to the room is almost entirely determined by the construction of the building and the amount of heat lost through the roof. It will be understood that air may not be fully saturated with moisture at the temperature at which it leaves the ventilators, but if this hot vapor laden air is allowed to come in contact with a cold concrete roof or with glass it may cool the air down sufficiently to be below the dew point and condensation will result.

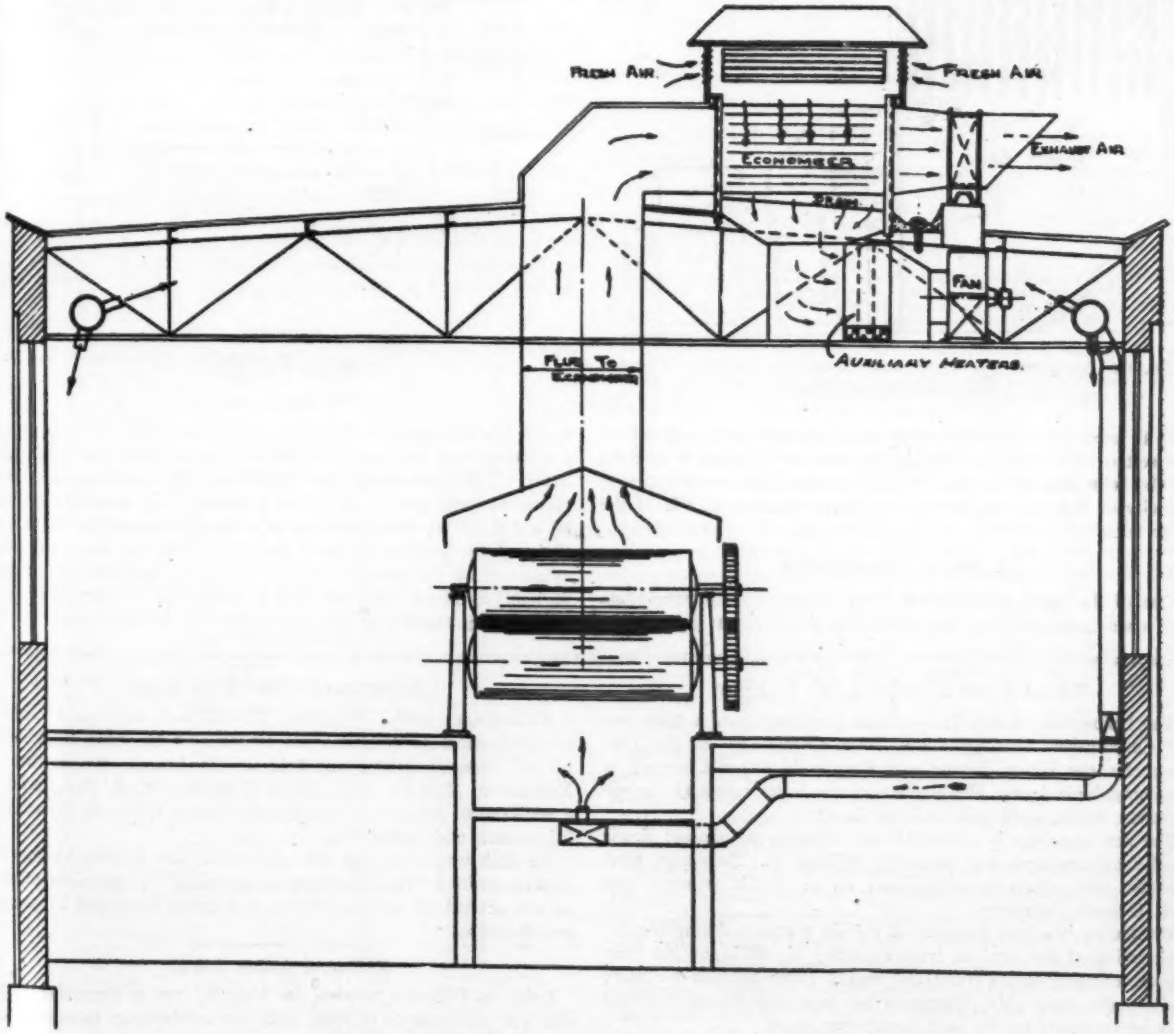
The discussion as to the relative merits with a hood and without a hood is subject to exact figures. A closely hooded machine, which confines the vapor laden air and conducts this air to the atmosphere at as high a temperature as possible, will enable more moisture to be carried to the atmosphere in each cubic foot of air than by any other method. This means that less air will have to pass through the room. Therefore under most conditions a hood is a desirable item from a ventilation standpoint.

This is not true in every case, as we have found some machines operating in specially designed buildings that carried as much moisture out per cubic foot of air as the average machine with a hood. Again we have encountered conditions where the outside temperature averaged sufficiently high so that the larger amount of air required for a room without a hood was compensated by the lower temperature at which the air had to be heated. Under such a condition the hood is not a paying investment.

### Utilizing Waste Heat

We are now coming to the utilization of waste heat from the vapor. One method of reclaiming the waste is to pass the vapor laden air through sprays of water which condense this vapor and raises the temperature of the water. It will be understood that the largest percentage of the steam used in the paper machine driers has been utilized in turning the water in the sheet into vapor. It takes approximately 970 B.t.u. to turn a pound of water into vapor. If this vapor could be condensed back into water, the same 970 B.t.u. can be recovered. This is the principle on which this water heater is used.

The more common method of utilizing this waste heat is the Briner economizer. The Briner economizer acts as a surface condenser and consists of several narrow passages separated by metal walls. The hot vapor is passed through every other channel and the cold air through the intermediate channels. The heat from the vapor passes through the metal walls and heats the incoming air.




SECTION OF MACHINE ROOM—TYPICAL ARRANGEMENT OF BRINER ECONOMIZER

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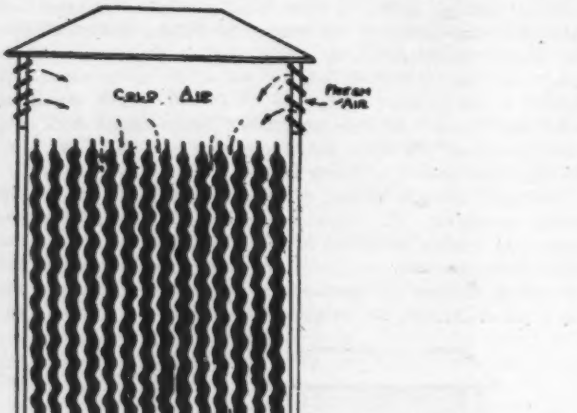
The vapor is condensed into water and is removed through gutters. The cold outside air is brought in through the economizer and heated up to a sufficiently high temperature so that it only requires steam in extreme weather. By this means the steam supplied to the paper machine driers is not only used to dry the paper, but the waste from that steam is used to heat the ventilating air.

This makes it possible to use the proper amount of air on the roof to keep the roof temperature above the dew point and allows the rest of the air to be brought down around the paper machine on the felts and in the pits, which not only increases the drying capacity of the paper machine but greatly prolongs the life of the drier felts.

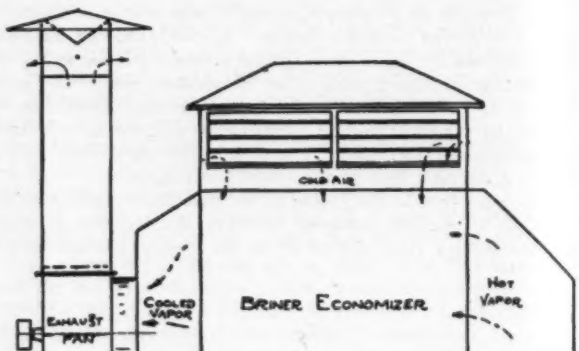



SHADED SECTIONS SHOWS SPACES THROUGH WHICH VAPOR PASSES HORIZONTALLY

### A Recent Development

One of the latest developments is the so-called cross ventilation. This consists of carrying the ventilating air sideways through the machine, eliminating vapor pockets and greatly increasing the moisture carrying capacity of the air.

The attached charts show quite clearly the application of the Briner economizer. The chart showing steam costs is based on four conditions of the machines. The outside temperature is given on the lower side of the chart and the costs of the steam for ventilation in cents per ton output is given on the left hand side. It should be borne in mind that this cost of steam includes the steam which has been used in the dryers for heating the air, but it is a ventilation cost and must be charged against the cost of making paper. The great saving due to utilizing this waste heat is clearly shown in cents per ton of paper produced. No general rules can be laid down for the ventilation of a machine room, but the proper study of the problem in each particular mill to insure the least amount of air necessary to keep the room dry and get out the production, combined with the proper utilization of the waste heat will pay big returns on the efforts and on the investment.




BRINER ECONOMIZER

## Takes Over Hamburg, N. J., Plant

The Union Waxed and Tissue Paper Company, Inc., a New Jersey Corporation, have purchased from Charles R. McNair, receiver for the Union Waxed and Parchment Paper Company at Hamburg, New Jersey, the business of the latter company, including plant, assets, good will, trade marks, etc.

The new company is organized with officers, as follows: Erwin W. Kelley, president and manager; William M. Thompson, vice-president and general superintendent; W. P. Neville, treasurer and J. F. Orlando, secretary.

Mr. Kelley has been manager of the old company during the administration of the receiver from February 15, 1922, and has been actively engaged in the tissue and waxed paper business for more than twenty years. Mr. Thompson has been superintendent of the plant at Hamburg for the past twenty-five years.

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## Kalamazoo Cost Men Meet

KALAMAZOO, Mich., November 21, 1923.—A very good meeting of the Kalamazoo Valley Local Division of the Cost Association of the Paper Industry was held in the Lincoln Auditorium at Kalamazoo, Mich., at 8 P. M. on Tuesday. W. J. Kane, who is a well-known lecturer on business conditions, spoke on the subject "Economics and Accounting."

He dealt very ably with this subject and also exhibited a moving picture, entitled "The Merchant of Mayville," a humorous picture on the revival of business, which was dying from lack of proper merchandising.

### Technical Index Ready

Index to Technical Section, for Vol. 75, July to December, 1922, and Vol. 76, January to July, 1923, are available at 10 cents each.

# MICROSCOPICAL ANALYSIS OF PAPER BY EIGHTEEN INVESTIGATORS USING DIFFERENT METHODS*

REPORT BY H. N. LEE, PAPER TESTING COMMITTEE, TAPPI.

Through the co-operation of a number of investigators the following data have been obtained which may serve as a basis for comparing the various methods commonly used in the microscopical determination of the fiber composition of paper. Most of the investigators have used only one method which they ordinarily use in this work. It must be also taken into account, in examining these data, that the majority of the investigators made determinations on some types of fiber mixtures which they had never handled before, which may account for some of the large errors. Some investigators also reported that they would have wished to devote more time to the study of samples but that they found it impossible to do so. The data, as a whole, may be considered as indicating results which would be obtained in almost any laboratory which makes a limited number of determinations on certain types of mixtures but not on all types. The writer wishes to express his appreciation of the work done and trusts that all who co-operated will feel well satisfied with the results obtained.

So that the investigators might become familiar with the various types of fiber mixtures, samples were sent out, the compositions of which were given and accompanying them were brief descriptions of the various methods used in microscopical examination. Later 15 samples, the compositions of which were not given, were sent out. These included the following mixtures:

Rag-sulphite, rag-sulphite-soda, sulphite-soda, sulphite-sulphate, sulphite-groundwood, bleached sulphite and unbleached sulphite.

In all cases samples were very carefully prepared handsheets, the constituent parts being weighed so that the composition would be accurately known. Eighteen investigators have submitted 26 analyses, the results of which are summarized in Tables I and II.

**TABLE I**

SUMMARY OF ANALYSIS OF 15 PAPER SAMPLES OF UNKNOWN FIBER COMPOSITION
Estimation Methods

*Clark Estimation Method*

| Investigator No. | Determinations: Within 5% | Within 10% | Over 10% | Max. Error, % | Max. Error in |
|---|---|---|---|---|---|
| 2A | 9 | 12 | 3 | 25 | R—S—Sod. |
| B | 11 | 13 | 2 | 15 | S—Unbl. S. |
| C | 7 | 11 | 4 | 25 | S—Sod. |
| 4 | 11 | 14 | 1 | 20 | S—Sod.. |
| 10 | 6 | 10 | 5 | 20 | R—S—Sod.<br>S—Unbl. S. |
| 11 | 10 | 15 | 0 | 10 | ..... |
| 22 | 7 | 11 | 4 | 24 | S—G. W. |
| Ave. | 8.7 | 12.3 | 2.7 | 19.7 | ..... |

*Quick Estimation Method*

| Investigator No. | Determinations: Within 5% | Within 10% | Over 10% | Max. Error, % | Max. Error in |
|---|---|---|---|---|---|
| 7 | 10 | 14 | 1 | 20 | S—Sul. |
| 8 | 9 | 11 | 4 | 25 | R—S—Sod. |
| 13 | 7 | 12 | 3 | 25 | R—S—Sod. |
| 22 | 9 | 12 | 3 | 20 | S—Sul. |
| Ave. | 8.8 | 12.3 | 2.7 | 23 | ..... |

*Gravatt*

| Investigator No. | Determinations: Within 5% | Within 10% | Over 10% | Max. Error, % | Max. Error in |
|---|---|---|---|---|---|
| 22 | 8 | 11 | 4 | 20 | S—Sul. |
| 23 | 7 | 10 | 5 | 20 | S—G. W.<br>S—Unbl. S |
| 24 | 8 | 12 | 3 | 17 | R—S—Sod. |
| 27 | 8 | 12 | 3 | 20 | R—S—Sod. |
| Ave. | 7.8 | 11.3 | 3.7 | 19.2 | ..... |

*Presented before the Fall Meeting of TAPPI, Oct. 26, 1923, at Appleton, Wis.

**TABLE II**

SUMMARY OF ANALYSIS OF 15 PAPER SAMPLES OF UNKNOWN FIBER COMPOSITION
Count and Measure Methods

*Count Method*

| Investigator No. | Determinations: Within 5% | Within 10% | Over 10% | Max. Error, % | Max. Error in |
|---|---|---|---|---|---|
| 5 | 9 | 14 | 1 | 16 | S—G. W. |
| *17 | 10 | 13 | 2 | 18 | S—G. W. |
| 18A | 8 | 13 | 2 | 15 | R—S—Sod.<br>S—Unbl. S. |
| B | 8 | 11 | 4 | 25 | R—S—Sod.<br>S—Sul. |
| Ave. | 8.8 | 12.8 | 2.2 | 18.5 | ..... |

*Spence and Krauss Method*

| Investigator No. | Determinations: Within 5% | Within 10% | Over 10% | Max. Error, % | Max. Error in |
|---|---|---|---|---|---|
| 4 | 13 | 13 | 2 | 16 | S—Sod. |
| 19 | 10 | 13 | 2 | 18 | S—G. W. |
| 21 | 8 | 12 | 3 | 21 | R—S—Sod. |
| 22 | 10 | 11 | 4 | 19 | R—S |
| 26 | 11 | 12 | 3 | 15 | R—S—Sod. |
| Ave. | 10.4 | 12.2 | 2.8 | 17.8 | ..... |

*Graff Method*

| Investigator No. | Determinations: Within 5% | Within 10% | Over 10% | Max. Error, % | Max. Error in |
|---|---|---|---|---|---|
| 6 | 6 | 14 | 1 | 11 | S—G. W. |
| 22 | 6 | 12 | 3 | 12 | R—S—Sod.<br>S—Sul. |
| Ave. | 6 | 13 | 2 | 11.5 | ..... |

*Investigator No. 17 analyzed samples 4 and 5, containing *rag-sulphite-soda*, only as *rag* and *chemical wood;* his results on this basis being within 5 per cent. In order, however, to compare his complete work with the others the average error made on samples 4 and 5 by investigators using the count method has been used.

Investigator No. 22 using the Graff method, used Spence and Krauss weight factors.

Investigator No. 4 using Spence and Krauss method, prepared slides by withdrawing fibers from a thick suspension with needle, not by pipette from every thin suspension as described by Spence and Krauss.

The average of all errors by each of the methods is: Clark Estimation—7.2, Quick Estimation—7.3, Gravatt Estimation—7.7, Count —6.9, Spence and Krauss—5.7, Graff—6.4. It should be noted that by all methods the *rag-sulphite-soda* mixtures show the highest average error. If these mixtures were eliminated from the tables the average errors would be very much less. Errors in *rag-sulphite* mixtures by all methods were generally less than 5 per cent and in only 5 out of 84 analyses more than 10 per cent.

Examination of the data indicate that no one method shows any great superiority over the others. The methods involving counting or measuring give results slightly more nearly accurate than the estimation methods.

The variations due to method of placing fibers on slide are small. This matter has apparently been greatly over-emphasized. This shows especially in the case of investigation No. 4, Spence and Krauss method, who gives the best results by this method in spite of the fact that he prepared slides by taking fibers out of a thick suspension with a needle.

It appears that in microscopical analyses of paper, there is room for two methods, one that will give reasonably good results with the expenditure of very little time, and the other a method which will give the most nearly accurate results regardless of the time involved. The requirements of the first are well met by the Quick Estimation Method; for the second, either the Count Method or the Spence and Krauss method. Since in the Spence and Krauss

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Method the personal element is eliminated to the greatest possible degree, it appears to be the logical method for most nearly accurate work.

Following are very brief descriptions of the suggested standard methods. It is assumed that readers are sufficiently acquainted with this kind of work to make it unnecessary to give all the fine details at this time.

### Spence and Krauss Methods for Paper Analysis

(See Spence and Krauss, Paper, May 23, 1917.)

Tear several small pieces of paper of equal size from different parts of the sheet or sheets to be tested. The pieces should be taken from as widely distributed points as possible. Tear pieces into small bits.

Heat to boiling in 1 per cent NaOH, wash several times in water and once with 1 per cent HCl and finally with water. Roll the paper into a ball and work between fingers to loosen the fibers. Place the ball in test tube and shake until fibers are completely separated. Dilute, if necessary, so that suspension contains about 0.02 per cent fiber.

Use a glass tube 10 in. long with a 5.5 mm. internal diameter, with one end rounded so as not to have sharp edges and the other end fitted with a small rubber bulb. After thoroughly mixing fiber suspension insert end of tube 2 in. below surface, expel two bubbles of air and draw some of the mixture into half an inch of the tube. At once empty contents of tube, four drops, onto four separate slides, place slides in air bath to dry, cool and apply stain.

Substitute method, (not given by Spence and Krauss) for placing fibers on slide. Remove fibers from thick suspension with needle. Separate fibers on slide with needles, take off water with hard filter paper, apply stain.

Use a microscope giving magnification of about 160 diameters, fitted with a mechanical stage. Taking the diameter of the field as a measure, note the total lengths of the various fibers present in several fields. Apply factor given below and calculate percentages.

| | |
|---|---|
| Rag | 1.000 |
| Coniferous Sulphite | .870 |
| Hardwood soda | .500 |
| Poplar | .450 |
| Birch | .662 |
| Beech | .525 |
| Maple | .365 |

### Quick Estimation Method for Paper Analysis

Take not less than three small pieces from widely separated parts of the sample. Heat to boiling in denatured ethanol, take out and blot off ethanol with hard filter paper; bring to boil in water. With many samples merely soaking a few minutes in ethanol and then in water is sufficient.

From each of the pieces remove as small a bit as possible with forceps and place them on slide, separate out fibers with needles. If too many fibers are present remove part by halving after thorough mixing. Finally separate fibers and put on cover glass.

Estimate the proportion of the different kinds of fiber present by looking over the slide. Make up and examine three slides and take average of results. Compare with standard known mixtures.

### Notes on Stains

This investigation was made especially for the purpose of comparing methods of examination regardless of how the fibers were attained. The following notes on various stains used may be of interest.

As a general stain the *Herzberg stain* is used almost universally with apparently complete satisfaction. *Sutermeister's stain* (using mixture containing calcium chloride) or a modification, was said to be superior by only two investigators. Several others stated that it is better than *Herzberg* in mixtures where soda pulp is present.

The *Lofton-Merritt stain* is used universally for sulphate-sulphite differentiation. The results given indicate that standardization should be carefully attended to. This stain either exclusively or as an alternative stain to Herzberg was used satisfactorily on sulphite-groundwood mixtures. Several investigators used it for bleached and unbleached sulphite differentiation with good results.

The *Bright stain* was reported as used by very few, chiefly because of the time it requires. When used it gave excellent results.

Five investigators reported satisfactory results using the modified *Siebert-Minor stain*. One investigator could not get satisfaction with it.

Malachite Green used in various strengths and with different methods of manipulation generally gave good results for differentiation of bleached and unbleached sulphite.

This investigation has been made for the purpose of comparing the various methods of microscopical analysis of paper and, while the conclusions are not given as final, it is hoped that the data can be satisfactorily used as a basis for establishing standard methods of analysis.

## Tentative Specifications

The following tentative specifications for Silicate of Soda used for corrugated boxboard have been proposed by the Freight Container Bureau of the American Railway Association:—

Silicate of Soda used in the manufacture of corrugated boxboard or for cementing the closures of boxes thereof must conform to the following analysis:

(a) For manufacturing the board the ratio of soda to silica must be not greater than 1 to 2.8 with a specific gravity not exceeding 47° Be. at 68° F., and it is recommended that silicate of soda having a ratio of soda to silica not exceeding 1 to 3.25 with a specific gravity not exceeding 43° Be. at 68° F. be used where manufacturing conditions permit.

(b) The silicate of soda must be as evenly spread as possible and should not exceed in amount from 18 to 22 pounds per 1,000 square feet of each film of cement used in the board.

Comment: 10. (a) and (b). For manufacturing corrugated boxboard, silicate of soda having the greatest ratio of soda to silica should be used consistent with good results in order to reduce the amount of alkali per 1,000 square feet of board to a minimum owing to the destructive effects on the waterproofing which this material exerts. For the same reason the total quantity of silicate used should be reduced as far as possible.

(c) For cementing the closures of boxes the ratio of soda to silica must be not greater than 1 to 2.8 with a specific gravity not exceeding 47° Be. to 68° F., nor be less than 1 to 3.0 with a specific gravity not less than 41° Be. to 68° F.

It should be reasonably free from organic matter except that artificial coloring matter is not objectionable.

Comment: (c) For cementing the closures of boxes the ratio of soda to silica should be larger than in those silicates used for manufacturing the board. The higher percentages of alkali are necessary in order to attack the waterproofing of the surfaces in contact and get a bond and such silicates are more "tacky" and take hold better. The film of silicate is separated from the outer waterproofed surface of the board by a greater thickness of paper than when used in manufacturing and the deteriorating effect is negligible.

## Lets Contract for Power House

HOLYOKE, Mass., November 20, 1923.—The American Tissue Mills, Inc., has given the contract for the erection of a new power house, 30 x 100 feet, to the Casper Ranger Construction Company. The company proposes to change its generation of power by coal to generation by the burning of oil under its boilers. The new power house is on Crescent street, the building costing $30,000.

# CURRENT PAPER TRADE LITERATURE

## Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

### Alkaline Process

**Method of Extracting Cellulose or Paper Pulp from Fibrous Vegetable Materials.** W. Raitt. Eng. pat. 195,005, Aug. 9, 1922. Addition to 171,482. The fractional digestion process described in the original patent is modified in such a way that it may be carried out in the Sinclair or Roeckner type of digester, in which the raw material is both boiled and washed free from the products of digestion.—A. P.-C.

**Removal of Odor from Sulphate Pulp.** G. A. Richter assignor to Brown Co. U. S. pat. 1,454,339, May 8, 1923. Sulphate pulp is treated with sufficient oxidizing agent to react with malodorous compounds without materially changing the color of the pulp.—A. P.-C.

**Manufacture of Paper Pulp and Apparatus Therefor.** A. Olier. Eng. pat. 193,965, Dec. 1, 1921. Fibrous materials are successively disintegrated, digested with alkaline solutions, washed, bleached, refined, and delivered to a pulp or paper machine, the operation of the apparatus being continuous. The raw material is crushed between rollers, cut in short lengths, freed from dust by a fan, and delivered into a macerating chamber, containing heated liquor, wherein it is further disintegrated by helically arranged knives mounted on a revolving shaft. The material impregnated with liquor falls into a continuous press consisting of a perforated cast iron trunk (to permit the escape of the expressed liquor) in which are arranged two screws of reverse pitch, rotating in reverse directions, and straddling each other. This press forces the material through a tapered tube, normally closed by a flap valve, into the digestion chamber, the compressed pulp in this tube acting as an obturator and preventing free communication between the digester and the macerating apparatus, when the flap valve is opened. The digestion apparatus, through which heated liquor continuously circulates, is preferably a vertical cylindrical chamber, suitably heated, and of such a height that the material during its passage is boiled to the desired degree. The material collecting at the bottom of the digester is removed by a continuous press and passed through a tapered tube closed by a flap valve into a vertical or inclined washing column, working on the counter current principle, and containing as a conveyor two screws having perforated coils, and arranged similarly to those in the continuous press. The washed pulp after further disintegration is passed up a bleaching column exactly similar in design to the washing column, from which it passes through a refiner on to a paper or pulp machine. In another modification the digestion is effected under pressure. An essential feature of the process is that all the chemicals used are recovered and regenerated electrolytically, e. g., the spent digestion and bleach liquors, together with the washing waters, are treated, after recovery of the fibers contained therein, with chlorine gas to precipitate the ligneous and pectic matter. This is removed by filtration or decantation, and the solution of salt electrolyzed; part of the caustic soda is used for the digestion process and the remainder is used for the production of sodium hypochlorite solution, while the balance of the chlorine is used to precipitate the lignin, etc., in the spent liquors.—A. P.-C.

**Key Industry of the South.** Henry W. Holcombe. *Paper* 32, No. 10, 13-14 (June 27, 1923). An experimental plant at Hattiesburg, Miss., has successfully treated yellow pine stumps for the extraction of naval stores and treatment of the residue for the manufacture of kraft pulp. A new type of cooker-drum allows the application of steam immediately to every particle of the wood, reducing the time of distillation to one third. A new solvent is used and is entirely recovered. Improved hogging, rolling and crushing methods leave the residue in excellent shape for transformation into paper pulp which, it is expected, can be bleached.—A. P.-C.

**Distribution of Methoxyl in the Products of Cooking Jack Pine by the Soda Process.** S. S. Aiyar. *Ind. Eng. Chem.* 15, 714-716 (July, 1923). Methoxyl in the pulp falls rapidly during the first two hours of cooking, and then very slowly. The volatile methoyxyl content of the liquor attains a maximum in half to one hour from the time of maximum pressure in the digester, and then diminishes, being converted into non-volatile compounds. Lignin and methoxyl contents of pulps from cooks of different duration, expressed in per cent of those of the wood, are practically identical, showing all the methoxyl is associated with the lignin in only one way. There is no advantage in cooking for more than two hours at 100 to 110 lb. per sq. in.—A. P.-C.

**Carbon Catalyst from Black Liquor.** C. B. Jacobs assignor to E. I. du Pont de Nemours & Co. U. S. pat. 1,462,752. July 24, 1923. A carbon catalyst adapted for use in making phosgene, carbon tetrachloride or other products is prepared by evaporating and calcining soda black liquor. The product thus obtained becomes ignited in air at a temperature below 370° C. (sometimes even at 80° to 150°).—A. P.-C.

**Treatment of Sulphate Black Liquor.** G. A. Richter and D. H. McMurtrie, assignors to Brown Co. Can. pat. 232,746. July 17, 1923. The liquor is concentrated, sulphur is added and the mixture is smelted. Sodium carbonate may be added to the molten effluent to compensate for the loss thereof by the reaction of sulphur with sodium carbonate initially in the spent liquor.—A. P.-C.

**Process for Dissolving the Organic Products Obtained by the Chlorination of Cellulose Materials.** A. R. deVains. Eng. pat. 198,975, Dec. 19, 1922. Addition to Eng. pat. 189,561. The process described in the original patent is modified by using as a solvent for the organic chlorine compounds either spent alkaline liquors which have been treated with carbon dioxide, sulphur dioxide, or solutions of alkali or alkaline-earth bisulphites and filtered from the precipitated organic matter, or spent liquors of any concentration resulting from the washing of cellulosic material that has been lixivated with alkalis.—A. P.-C.

**The Probable Reasons for the Strength of Kraft Papers.** *Papierfabr.* (Fest u. Ausland Heft) 21, 60-62 (June 9, 1923). Not only do the resins contribute to the strength of kraft paper, but also the other fatty constituents of the pulp. These substances probably contain unsaturated acids, which at an elevated temperature are oxidized and form polymerized films in the paper, thus knitting the fibers together. Old trees do not yield these substances to such a degree as young ones. The possibility of utilizing the fresh extract from conifers for sizing paper is suggested.—J. L. P.

**The Rinman Process.** Emil Heuser. *Papierfabr.* 21, 325-330 (July 15, 1923). An address covering the development and use of the Rinman process in Germany. The average yield of by-products per ton are: pure methanol 10 kg., pure acetone 8 kg., methyl ethyl ketone 10 kg., higher ketones 6 kg., light oils 4 kg., and heavy oil 52 kg.—J. L. P.

**Process for the Purification of Pulps.** Carl G. Schwalbe and Ernst Becker. Ger. pat. 369,606. *Wochbl. Papierfabr.* 54, 2145 (July 28, 1923). Pulps are digested at 100° C., in the presence of alkaline earths.—J. L. P.

**Treating Cellulose Materials.** E. L. Rinman. Swed. pat. 54,171. Mar. 28, 1923. The materials containing cellulose are treated with hot water or hot dilute waste liquor at temperatures below 100° (80 to 90°) before going to the boilers.—C. J. W.

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### Bleaching

**Production of Bleached Cellulose.** A. R. deVains. Eng. pat. 189,561, Sept. 5, 1921. Liquors which have been previously used for the treatment of cellulosic materials are used as alkaline liquors to dissolve the products obtained by the action of chlorine on lignocellulose or on halfstuff.—A. P.-C.

**Bleaching Liquor Produced from Salt and Water by Means of Low Voltage Cells.** *Paper Ind.* 5, 779-780 (Aug., 1923). The advantages of electrolytic sodium hypochlorite, prepared directly by electrolysis of sodium chloride, are briefly outlined, and a low voltage (4.6 v.) cell for its preparation is described. Under normal conditions a pound of chlorine can be produced from 5.08 lb. of salt and an electrical consumption of 2.5 kw. With salt at $10 a ton and electricity at 0.5c per kw., this would be equivalent to 35 per cent bleaching powder laid down at the mill for $1.15 per 100 lb.—A. P.-C.

**Effect of Concentration in Bleaching Soda Fiber.** E. Sutermeister. *Paper Ind.* 5, 760-763 (August, 1923). From a series of laboratory scale experiments the author concludes that, with soda fiber, increasing the concentration of the stock during bleaching lowers the color of the bleached fiber, but the change is so small that it can be corrected at very slight cost by the addition of a little more bleach. Most of the obtainable savings in time and reduction in shives is gained by raising the concentration to 8 per cent, greater increase having but little effect. The loss on bleaching is so slightly affected by concentration that it can be disregarded.—A. P.-C.

**Bleaching Paper Pulp.** R. B. Wolf. U. S. pat. 1,454,610, May 8, 1923. Paper pulp is lifted to the top of a bleaching tank (through which it subsequently descends) by a conveyor within a central vertical tube, which is made narrower at the bottom than at the top to prevent wedging of the descending pulp between the conveyor tube and the tank wall.—A. P.-C.

**Investigation of the Hypobromite Method for Determining Bleach Requirements of Pulps.** T. M. Andrews and M. W. Bray. *Ind. Eng. Chem.* 15, 934-937 (September, 1923); *Paper Trade J.* 77, No. 13, 47-50 (Sept. 27, 1923). In Tingle's hypobromite method, in order to avoid errors due to volatilization of bromine the reacting solution should be diluted and should be maintained at a temperature of 23° C. to 28° C. With these precautions the method is of definite value for sulphite pulps provided bleach requirements do not vary too greatly. With soda pulp there is an apparent lack of constancy in the ratio of the chlorine factor to the bleach requirement.—A. P.-C.

**A New Hypochlorite Bleach.** P. Andren. Fr. pat. 530,706. A mixture of chlorine and air is passed over a paste consisting of lime and water to which has been added a saturated solution of calcium chloride and calcium hypochlorite. This paste may also contain the products of decomposition of calcium hypochlorite as well as the soluble salts present in the caustic lime used. The reaction mass is continuously stirred during the chlorination. The resulting paste is filtered and the solid part, which is the active product, is dried in a vacuum at a low temperature. The resulting product is characterized by its stability.—A. P.-C.

**The Bleaching of Ligno-Cellulose.** Carl G. Schwalbe and Herman Wenzl. *Paper* 32, No. 10, 9-10, 21 (June 27, 1923); No. 11, 5-6, 28 (July 4, 1923). Also *Pulp and Paper* 21, 825 (Aug. 16, 1923); *Paper Trade J.* 77, No. 8, 50 (Aug. 23, 1923).—A. P.-C.

**Comparative Bleaching Experiments with Chlorine Gas and Chloride of Lime.** Emil Heuser and Werner Niethammer. *Papierfabr.* (Fest u. Ausland Heft) 21, 52-60 (June 9, 1923). Comparative bleaching experiments were carried out at room temperature on a Ritter-Kellner sulphite pulp, which possessed a copper number of 2.20. Upon bleaching to a standard white, in the usual way with chloride of lime for 6 hours, the chlorine consumption amounted to 3.2%, the copper number increased to 3.13% and the yield was 96.5%. Chlorine gas was next passed through a suspension of pulp in water for an hour, but a full white was not obtained. In this experiment the chlorine consumption varied from 2.5 to 2.9%, independent of the quantity of gas passed through; the maximum copper number was 2.90, and the yield was 97%. A combined chlorine gas-chloride of lime bleach gave the best results. After treating the pulp mixture with chlorine gas, which amounted to 62 to 72% of the total requirement, it was washed with water or 1% sodium hydroxide solution. To obtain the same degree of whiteness, as by a single bleaching process, only about 50% of the chlorine was required and the time was shortened to 80 min.; the copper number was lower, 1.9; and the yield was higher, 97.5 to 98.1%. Washing the pulp with a 1% sodium hydroxide solution gave better results than by using water alone, thereby effecting a percentage chlorine saving from 45 to 54 compared to the usual chloride of lime bleach. —J. L. P.

### Fillers and Coating Materials

**Georgia Clays for Paper Fillers.** W. M. Wiegel. *Paper Trade J.* 77, No. 6, 51-54 (Aug. 9, 1923). As a result of tests which are described in detail the author concludes that many of the Georgia white clays when properly washed and prepared are fully equal to and in some cases are superior to the imported clays for use in paper.—A. P.-C.

**Paper Fillers.** Reymond and Bonnet. *Papeterie* 45, 681-689 (July 25, 1923); *Paper* 32, 5-8, 17 (Sept. 19, 1923). Description of fillers, their function, degree of retention, and uses in various grades of paper.—A. P.-C.

**Deflocculating and Reflocculating Clay and Other Materials.** E. G. Acheson. U. S. pat. 1,456,112, May 23, 1923. Clay, graphite, sulphur, or other solid material susceptible to deflocculation is subjected to attrition with the product from roasted cereals and ammonia or other organic deflocculating agent and the colloidal material is afterward reflocculated by hydrochloric acid, alum, or other electrolyte in the presence of residual fine material to obtain a mixture of non-deflocculated and reflocculated particles which may be used as a filler for paper.—A. P.-C.

**Development and Growth of the Use of Casein.** Reginald W. Bird, *U. S. Papermaker* 45, 24, 26, 92 (August, 1923). Sketch of the development and growth of the use of casein for coating paper in the United States.—A. P.-C.

**Filling Paper Stock.** Friedrich Reichard. Ger. pat. 387,425. *Papierfabr.* 21, 347-348 (July 22, 1923). Water glass and a metallic salt are added to the paper stock in the manner described in Ger. pat. 349,882.—J. L. P.

**Process of Coating Paper with Fibers.** Johann Palmen. Ger. pat. 372,870. *Wochbl. Papierfabr.* 54, 2607 (Sept. 19, 1923). The fibers are distributed on the sheet of paper, which is covered with a liquid adhesive, and then dried on heated cylinders.—J. L. P.

**Bituminous Clay Emulsion for Impregnating Paper.** L. Kirschbraun. U. S. pat. 1,461,445, July 10, 1923. Heated asphalt or other bituminous material is added to colloidal clay and water to form an emulsion and a hydrocarbon oil such as topped Mexican petroleum is then added to constitute an additional internal phase of the emulsion.—A. P.-C.

### Chlorine Process

**Process of Obtaining and Cleaning Cellulose from Wood and Similar Substances.** E. Schmidt. Eng. pat. 191,357, Feb. 14, 1922. Cellulose may be isolated from fibrous materials such as wood, waste paper, etc., by treating them, either at the ordinary temperature at 40° to 70° C., with chlorine peroxide in presence of liquids, such as dilute acetic acid, which are capable of dissolving the lignin after it has been attacked by the reagent. The resulting cellulose is subsequently leached with alkali solution.—A. P.-C.

**The De Vains Process in Paper Making.** J. F. Clere. *Paper Makers' Mo. J.* 61, 328-331 (Aug. 1, 1923); *Paper Mkr. & Brit. Paper Trade J.* 66, 315-317 (Sept. 1, 1923); *World's Paper Trade Rev.* 80, 492-496 (Aug. 10, 1923). See *Pulp & Paper* 21, 854 (Aug. 23, 1923).—A. P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

*Affiliated with*

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

# THE SPECIAL RELIEF SECTIONS OF THE FEDERAL TAX ACTS*

By J. Austin Smith

Mr. Chairman and Gentlemen:

All of you know that the war and excess-profits taxes were assessed against incomes arising from the employment of capital, by a graduated scale of percentages; that, in 1918, this scale ran as high as 80 per cent of the income; that it was not only the amount of income that determined the amount of tax to be paid, but also the amount of capital which was employed in the business. You know that intangible and borrowed capital, although income-producing in nature, could not be included in calculating statutory invested capital. You know that, although certain classes of income, such as commissions and insurance, did not arise from the employment of capital yet you were forced to include this income with your other income, in computing the excess profits tax, which was assessed on the assumption that all *income* arose from invested capital and that only so-called statutory capital was used in producing the income. At least that's the way it worked out.

Now, gentlemen, in writing these income-tax laws, Congress foresaw that some of you, because of unusual and exceptional conditions affecting your capital and income, would pay a much higher tax than others. It foresaw that some of you gentlemen would pay into your business all of the capital it required in order to properly operate, and that others of you would capitalize at a nominal amount and borrow whatever additional capital was needed in order to properly carry on the business. It anticipated that some of you would pay liberal officers' salaries, and that others would pay small and conservative salaries; that some of you would have in your business intangible income-producing factors represented by good will and trade-marks which had been developed over a long period of years and which had an income-producing effect on the business although the value of this intangible capital could not be included in invested capital. It foresaw that these conditions would not apply to certain others of you. It, therefore, realized that these conditions would cause some of you to pay a much higher tax, in proportion to your income, than others.

### All Corporations in the Same Line of Business Don't Pay the Same Ratio of Tax

Some people think that simply because a number of corporations are engaged in the same line of business that all of them pay about the same proportion of their income to the Government, in tax; but this is not so. Some time ago, the Secretary-Treasurer of your Cost Association sent questionnaires to all of the members requesting them to submit certain valuable information necessary to disclose the existence of any unusual hardships which had been caused by the conditions I have just mentioned. There was a very liberal response by the members and the Association has prepared an extremely interesting composite chart of the questionnaires which were returned. This chart not only shows the ratio of tax to income but it also discloses the *reasons* why the tax, in any particular case, is high. I have here a graph of this composite chart which shows the percentages of tax to income for 1918. The heavy wavy lines across the chart represent the various percentages of tax to income paid by the members recorded; the numerals at the left express these points in figures, and the numbers at the top of the sheet represent an index number indicating the name of the mill which supplied the information. The broken line running across the graph represents the average tax paid by these mills.

You will observe that mill number 19, gentlemen, paid the Government approximately 73 per cent of its income, in tax, whereas the average tax paid by its competitors was only 40 per cent of their income. Observe, gentlemen, that, of the 31 representative mills which have been included in this chart, ten of them are substantially above the average. It does not require a very active imagination to picture the injustice and hardships which arise from the fact that mill number 19 had left for its stockholders less than thirty cents out of every dollar of its income, after paying taxes, whereas, most of its competitors had from seventy-five to sixty cents left out of every dollar of their income. Certainly a mill placed in the position of number 19 is at a tremendous disadvantage in meeting the competition of mills who are in more fortunate positions. In other words, it would be necessary for this mill to charge two or three normal profits in order to have as much money left, at the end of the year, as its competitors.

### Congress Provided a "Relief Valve"

With unusual foresight, Congress anticipated these very conditions and put a "relief valve" in the law—a medium through which extortionately high taxes may be reduced—for the benefit of such taxpayers as number nineteen. In other words, gentlemen, Congress has written into the law a section which says, in effect, that, if one taxpayer pays a tax of 60 per cent of its income, and it can show that the reason its tax is so high is the existence of

Cost Section

*Address delivered before convention held by the Cost Association of the Paper Industry at Sylvania Hotel, Philadelphia, Nov. 23, 1923.

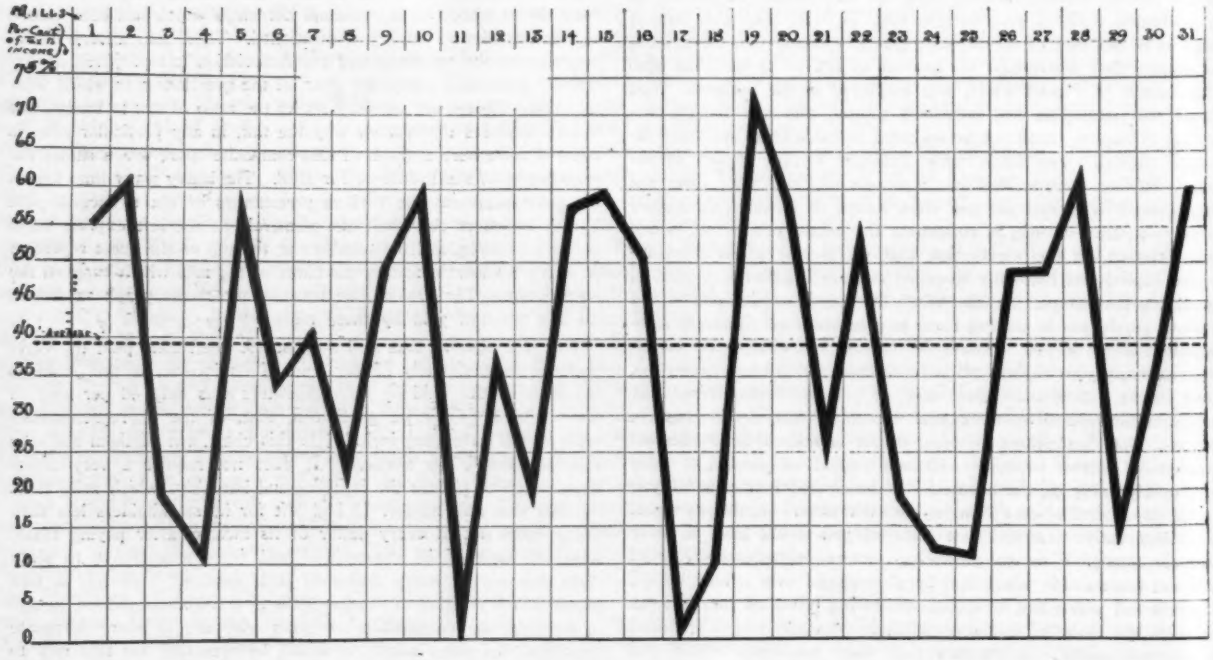
conditions which I have already mentioned regarding invested capital and income and if it will explain these conditions to the Bureau the tax will be reduced to the average tax paid by other representative competitive concerns. For instance, let us assume that such a taxpayer has paid a tax equal to 60 per cent of its income and the average of representative competitive concerns was only 30 per cent of their income, in that case, the Government would refund to the high taxpayer an amount equal to 30 per cent of its income. Let me emphasize here, by reiterating the statement I made a few moments ago, that whenever a corporation has income which did not arise from the employment of capital—such as commission, insurance, etc.—and whenever a corporation has income which arose from the employment of capital—such as borrowed or intangible capital—which cannot be included in computing its invested capital, it is almost a fixed rule that it will pay a higher tax than its competitors who do not have these conditions. The excess and war profits taxes are primarily intended as a levy on income earned by employing capital, and as soon as you have income which does not arise from the employment of capital, or which arises from capital which cannot be included in invested capital, you then have an abnormal condition which will bring you within the purview of these relief sections of the law.

### Two Conditions Necessary to Obtain Relief

It was not the intention of Congress to penalize any taxpayer or to place it at a disadvantage in meeting competition and, theoretically, if no abnormal conditions existed, all taxpayers in the same line of business would pay the Government about the same ratio of tax to income. It is absolutely essential, in order for a taxpayer to come within the purview of these relief sections, for it to show that two distinct conditions are present: First, it must show that abnormal conditions affect either its income or capital or both, and, second, that its tax is very high. In other words, gentlemen, you must not only have paid a high tax, in order to obtain special relief, but you must be in a position to prove that the reason your tax is high is because of the existence of these abnormal conditions. You may have paid a very high tax and, failing to prove that it was caused by abnormal conditions, obtain no relief. On the other hand, you may have very excellent abnormal conditions but, not having paid tax higher than that paid by representative competitive concerns, receive no relief. You must do two things to get relief: First, pay a high tax, and second, prove that the existence of abnormal conditions *caused* it to be high.

### What Constitutes Abnormal Conditions

Now, let us consider, for a moment, what is meant by the term "abnormal conditions." The law limits the definition of "Invested Capital" to "paid-in capital and earned surplus." There are numerous corporations in this country which have been in existence a great many years and which have acquired their assets—and this is especially true of real estate—when costs and realty values were very low. Many such corporations were established in small but growing towns which have passed through a period of rapid development and growth typical of American Industrial Cities. The mere passage of time has immensely increased the value of the property of such corporations. In preparing balance sheets, many corporations include such assets at their present value, for the consideration of bankers and the information of stockholders, since such values are recognized by financial institutions in lending money. Present values, therefore, constitute a real and equitable basis on which to carry real estate and improvements as capital assets. Notwithstanding the fact that these values are actually used in earning profits they are excluded, by the terms of the law, in computing invested capital.




A corporation may have purchased its entire plant at a bankruptcy or foreclosure sale or acquired it in some other way at a price substantially less than its real value, so that there may be a great difference between the cost and the real value but, regardless of the amount, such values are excluded in computing invested capital, even though they form a very substantial and real basis for borrowing money which the corporation uses and with which its profits subjected to tax are earned.

A company may have spent large sums of money in advertising—not for the purpose of selling any specfic merchandise—but for the

purpose of developing good will and of establishing trade-marked or copyrighted names. At the end of a long period, the amount of money spent for advertising may very well have increased the actual money value of the trade name in a greater amount than has been spent on it but, even though the good will thus established is a real and valuable asset, it cannot be included in invested capital.

I do not mean to leave the impression that advertising expense should be capitalized, but I do say that the expenditure of large sums for advertising in years antedating the application of the excess and war-profits taxes may very well be considered as an abnormal condition because the beneficial results of this expense are increased sales in later years to customers secured by such advertising without further solicitation or cost.

Then there is the corporation whose officers prefer to have a nominal investment and to endorse its paper and permit it to borrow whatever additional capital it may require. This conservative class of corporation will often be found carrying its assets at very low values. It will be found, in many instances, that corporations of this character have substantial assets on their books at a nominal value of one dollar.

Large sums of borrowed capital were needed in these high tax years by nearly all conservatively capitalized corporations. All available resources had been employed in the business but had been insufficient to meet the unusual demand for merchandise and extensions of credit to customers. During these years it was necessary to carry large stocks of merchandise and also to extend unusual credits to dealers. The extraordinary advance in the cost of merchandise alone made necessary the employment of much greater capital than the volume of business, under normal conditions, required. The normal resources, consisting of paid-in and earned capital, were insufficient to meet the demands of the business and it was a case of either borrowing money or increasing capitalization by selling stock in order to prevent suffering a loss of business. These conservatively capitalized taxpayers foresaw that upon the return of normal business they would be greatly injured unless they had obtained borrowed capital and cared for the requirements of their customers. Further, upon return of normalcy, they would not need and could not profitably use the additional capital which would be available if they had sold stock. Many officers found it necessary to endorse their company's paper, in order to give it even greater borrowing capacity. Both the fact of borrowing large sums of money and the endorsement of negotiable paper constitute an abnormal condition. The Act says, specifically, that borrowed money cannot be included in invested capital, but my point is that borrowed money and, more especially, money borrowed upon personal endorsement, constitutes an abnormal condition and is a circumstance tending to bring a taxpayer within the purview of the relief sections.

In many corporations the capital stock is closely held and the control of the corporate affairs, as well as the majority ownership of such stock, is in the hands of the officers. Where officers own a particularly large percentage of the stock they frequently prefer to receive their remuneration in the form of dividends rather than salary. This condition exists even in large corporations and, as a result, the amount of officers' salaries appears as an item far below the actual value of the services rendered. A corporation in this condition will, obviously, have to pay much heavier Federal taxes than would be necessary if its officers were paid a reasonable salary. Therefore, it seems fair that such a condition would be abnormal and oppressive and would strongly tend to bring the taxpayer within the purview of the relief sections.

Many dealers take merchandise on consignment to be sold or returned. The consignment is not expected to be paid for until sold at which time commissions are deducted and the purchase price paid to the consignors. In this way many taxpayers earn large profits in the form of commissions and without the use of any capital whatever or only a small capital. This is just another illustration of an abnormal condition affecting income.

### How Abnormal Conditions Increase Tax

Let us draw a picture, if you please, of two corporations one of which may be termed a perfectly normal corporation and the other an abnormal corporation having in it some of the conditions which I have been describing. Let us say that both of these corporations were organized at the same time, in 1875; that both of them engaged in identically the same business and covered practically the same sales territory. Let us assume that the capitalization of both of these companies was $1,000,000. Let us assume that, at the end of 1916, the normal corporation decided to reorganize and in connection with the reorganization, it sold some new stock and bonds to the extent of $1,000,000, thus giving it $2,000,000 of invested capital. At the time of reorganization there was no real change in ownership and the same stockholders who owned the old company were in control of the new company immediately after the reorganization. This made it possible for them to write up the real estate, which had been acquired in 1875 and which had greatly appreciated in value, to the extent of $250,000 and claim this amount as paid-in surplus. Let us say that it was able to prove that it had a substantial good will and, under the provisions of the law, it was able to capitalize its good will at 25 per cent of the outstanding stock. Thus, when it opened its doors for business, January 1,

J. Austin Smith

1917, it had $2,750,000 of invested capital. The other, conservative corporation, with its capital of $1,000,000, foresaw that much additional capital would be needed and, by obtaining the endorsement of its stockholders, went out and borrowed $1,750,000 of additional working capital. Thus, both corporations started business January 1, 1917, with $2,750,000 of working capital. Let us assume that both of them earned exactly the same amount of income—$500,000, before paying officers' salaries. Let us assume that the normal corporation was liberal and paid $100,000 officers' salaries, leaving $400,000 subject to tax. The abnormal corporation, being more conservative, paid its officers a salary of only $50,000, leaving $450,000 subject to tax. Now, when these corporations calculate their exemptions, the normal corporation finds that it is entitled to an exemption of 8 per cent of $2,750,000, or $220,000 which it subtracts

from its income of $400,000, leaving $180,000 subject to the excess profits tax. The abnormal corporation—the conservative one—finds that it cannot base its exemption upon its total working capital because $1,750,000 of it is borrowed capital, therefore, its exemption is only $80,000 which it subtracts from its $450,000, leaving $370,000 subject to the excess profits tax. Now, gentlemen, you have there two corporations with identically the same working capital and with identically the same income. Yet, one of them is about to pay a tax on $370,000 and the other is paying a tax on $180,000. The profits tax of the abnormal corporation would be approximately 60 per cent of its income, and the profits tax of the normal corporation approximately 24 per cent of its income. In other words, the normal corporation, because it was conservative; because it availed itself of the use of borrowed money; because it preferred to build up its surplus rather than to pay large officers' salaries; because it wanted to turn its capital rapidly—in a word, because it used ordinary good business judgment— is penalized by being forced to pay sixty cents out of every dollar it earns, whereas the other corporation is paying only twenty-four cents on the dollar. These illustrations, gentlemen, are not hypothetical, except as to figures; they represent members of this association with whom I am in intimate touch. There are many conditions which the Bureau has already recognized as constituting abnormal conditions sufficient to bring a corporation within the purview of the relief sections, and among them are those I have just referred to, that is the use of borrowed capital and the payment of low officers' salaries. This illustration will give you a very good idea of the manner in which so-called "abnormal conditions" may inflict an extortionately high tax upon a corporation.

### "Special Relief" Never Increases Taxes

I wish to point out, gentlemen, that the "special relief" sections of the law are not intended to increase the tax; they operate as a *relief* provision. In other words, if, when the Bureau selects the representative competitive concerns referred to in the Act and arrives at an average tax, this average is above the tax you have paid, no change is made in your tax liability. If, on the other hand, the average is below the tax you have paid, then the difference is refunded or credited to you. In a word, a corporation entitled to special relief has all to gain and nothing to lose by filing an application.

### When to File the Application

Ordinarily the Bureau will not consider a claim for special relief until after the statutory invested capital and income has been determined. Generally this means that a "special relief" application will not be acted upon until either a field or Bureau audit has been made. This does not mean, however, that you should wait until your returns have been audited before filing a claim for relief; you may then find it too late. You can do it at any time and the application will be held until the case has progressed to the point where it can be considered. It other words, if you have paid a relatively high tax and if abnormal conditions are present, you should not wait until your income and capital have been finally adjusted—no matter how many points you may have in controversy—to file your special relief claim. In fact, I think it is far preferable that the application be filed as soon as the decision to file one is made, rather than to wait until the items in dispute have been disposed of. In this way the work of the Bureau is expedited because the case is not finally closed by the Section with which you are having the controversy but, after a final decision is made with respect to the capital and income, it is sent to Special Assessment Section where the application is acted upon. Then when the case is finally closed, the Bureau's work is through. If no application is filed until after the points in controversy are settled it is likely that some difficulty may be experienced in having the case reopened, particularly if it has been appealed to the Committee on Appeals and Review. Furthermore, it may be found that the application cannot be properly prepared in the twenty or thirty days given by the Bureau within which to appeal from its decision. It is certainly not helpful to the Bureau for you to let it do all the work incidental to finally closing your case before filing this application. The Bureau is doing everything possible to facilitate the audit of the thousands of returns which have been filed in the past few years. It is the duty of taxpayers to present all the information or contentions they want considered, preferably at the same time, but certainly before the cases are finally closed if it is at all possible to do it.

### Value of the Association Charts

The chart which the Cost Association has prepared should prove very helpful in determining whether you should appeal your case. You are not to assume that the average shown in that chart is the average which Bureau will arrive at when it selects the six representative concerns with which to compare you. This average may, however, be tentatively accepted by you as representing the average of the industry and, if you are substantially above it and if you find that abnormal conditions have affected your business then it is entirely likely that you will be justified in filing an application for special relief. The chart also contains data which will indicate, in many instances, the reasons why your tax is higher than the average. Particularly I refer to the second line of the chart which shows the average percentage of officers' salaries to annual sales. You can take almost any company on the chart and when you find the percentage of officers' salaries to annual sales below the average you will find the tax above the average. The same thing may be said of the various other conditions which are disclosed by this chart. In a word, every time you find an abnormal condition in the chart represented by low officers' salaries, the use of borrowed money, low capital or high turnover, you will invariably find that the percentage of tax to income is high. The chart, therefore, is of great value to the members of the Association in comparing their business conditions and the taxes paid with those of the other concerns in the industry. As the various firms are represented by an index number, the information disclosed is of a very confidential nature. I understand, from Mr. Burke, that a great many questionnaires have been received since this first section of the chart was finished. I strongly urge those of you who have not sent in your questionnaires to do so because this is an Association activity which will unquestionably result in the greatest possible benefit to many of the members. I want to direct attention to the fact that Mr. Burke has selected, in the compilation of Chart No. 1, representative members of the American Paper and Pulp Industry with respect not only to territory but to the different branches of the industry so that the chart which you will receive is truly representative. In my opinion, the average percentage of tax stated in that chart may be safely relied upon as being reasonably near the average which the Bureau will arrive at in settling any special relief case which may be appealed. Your application for special relief should be filed with the Commissioner of Internal Revenue, in the event your case has not been closed; in the event it is closed it should be filed as a claim for refund, through your local Collector's office. You should show, in detail, the manner in which abnormal conditions have affected your business and you should prove your contention by evidence of a convincing nature. After your application is received and acted upon in the Bureau you will be advised of the results. If you are dissatisfied with the results indicated, you will be given an opportunity to submit evidence to show why a different result should be arrived or to appeal to the Committee on Appeals and Review. The law prohibits the Bureau from telling you the names of the concerns with whom you have been compared. For that reason, you are at a disadvantage in protesting against the average arrived at. In some cases it is helpful for the taxpayer to submit to the Bureau a list of as many firms

(*Continued on page 62*)

Agents
SUNDS AKTIEBOLAG
STRONG SULPHITE
indirect cooking

PERKINS-GOODWIN CO.
NEW YORK
PULP and PAPER

Agents A/S Toten Cellulosefabrik
BLEACHED SULPHITE
AGENTS GULSKOGEN
CELLULOSEFABRIK
EASY BLEACHING
SULPHITE

"IMPCO" TAILING SCREENER
FOR SCREENING GROUND WOOD TAILINGS

Very Low
Power
and
Upkeep Expense

Delivers
Rejections Free
from Good
Stock

ANOTHER UNIT OF OUR CLOSED SYSTEM FOR PULP SCREENING
*WRITE FOR FULL DETAILS* *CORRESPONDENCE A PLEASURE*

IMPROVED PAPER MACHINERY CO. Nashua, N. H.
SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA

# Imports and Exports of Paper and Paper Stock

## NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING NOVEMBER 17, 1923

### SUMMARY

News print.....1,135 rolls, 151 bls.
Printing paper.....417 rolls, 153 cs., 76 bls.
Hangings.....1,879 rolls, 519 pkgs., 58 bls., 16 cs.
Wall paper.....304 rolls, 492 bls.
Cigarette paper .....118 cs.
Drawing paper.....2 cs.
Tissue paper.....6 cs.
Filter paper .....1 cs.
Packing paper.....106 bls.
Wrapping paper,
58 bls., 60 bdls., 4,330 rolls, 35 cs., 23 pkgs.
Kraft paper.....917 bls., 916 rolls, 11 cs.
Decalcomania paper .....9 cs.
Miscellaneous paper.....90 cs., 316 bls., 416 rolls

### CIGARETTE PAPER

F. P. Gaskell & Co., Waukegan, Havre, 38 cs.
Standard Products Corporation, by same, 80 cs.

### TISSUE PAPER

F. C. Strype, Scythia, Liverpool, 6 cs.

### WALL PAPER

The Prager Company, Canopic, Hamburg, 304 rolls.
National City Bank, by same, 465 bls
F. J. Emmerich, Adriatic, Liverpool, 27 bls.

### PAPER HANGINGS

A. C. Dodman, Jr., Adriatic, Liverpool, 48 bls.
W. H. S. Lloyd & Co., by same, 13 cs.
W. H. S. Lloyd & Co., Mississippi, London, 3 cs., 10 bls.
C. G. Keferstein, Ohio, Hamburg, 519 pkgs., 447 rolls.
Manitou Paper Company, by same, 1,432 rolls.

### WRAPPING PAPER

Fernstrom Paper Company, Ohio, Hamburg, 50 bls.
Blauvelt Wiley Paper Manufacturing Company, Assyria, Glasgow, 60 bdls.
Wilkinson Brothers & Co., Inc., McKeesport, Rotterdam, 589 rolls, 8 bls.
Import Paper Company, A. Ballin, Hamburg, 35 cs.
C. K. MacAlpine & Co., by same, 3,741 rolls.
C. G. Keferstein, Canopic, Hamburg, 23 pkgs.

### PACKING PAPER

Wilkinson Brothers & Co., Inc., Ohio, Hamburg, 106 bls.

### KRAFT PAPER

Wilkinson Brothers & Co., Inc., Ohio, Hamburg, 276 bls., 275 rolls.
International Acceptance Bank, by same, 404 rolls.
M. O'Meara Company, by same, 350 bls.
W. Hartmann & Co., by same, 291 bls., 282 rolls, 11 cs.

### NEWS PRINT

Parsons & Whittemore, Pres. Roosevelt, Bremen, 151 bls. 143 rolls.
W. Hartmann & Co., Ohio, Hamburg, 193 rolls.
Wilkinson Brothers & Co., Inc., by same, 89 rolls.
Chemical National Bank, by same, 710 rolls.

### PRINTING PAPER

Wilkinson Brothers & Co., Inc., Ohio, Hamburg, 312 rolls.
W. Hartmann & Co., by same, 105 rolls.
Perkins, Goodwin & Co., N. Amsterdam, Rotterdam, 11 cs.
Oxford University Press, Adriatic, Liverpool, 5 cs.
Oxford University Press, Scythia, Liverpool, 4 cs.
B. F. Drakenfeld & Co., by same, 13 cs.
Perkins, Goodwin & Co., Assyria, Glasgow, 52 cs.
Perry, Ryer & Co., by same, 52 cs.
Steiner Paper Corporation, A. Ballin, Hamburg, 16 cs.
M. O'Meara Company, by same, 76 bls.

### DECALCOMANIA PAPER

L. A. Consmiller, Pres. Roosevelt, Bremen, 9 cs.

### FILTER PAPER

Kolynos Company, Mississippi, London, 1 cs.

### DRAWING PAPER

H. Reeve Angel & Co., Verentia, London, 2 cs.

### PAPER

J. P. Heffernan Paper Company, Carolina, Trieste, 16 bls.
Bernard Judas & Co., by same, 9 bls.
M. O'Meara Company, Pres. Roosevelt, Bremen, 65 cs.
J. P. Heffernan Paper Company, Ohio, Hamburg, 11 bls.
Birn & Wachenheim, by same, 25 bls., 20 rolls.
Wilkinson Brothers & Co., Inc., by same, 54 rolls, 148 bls.
Gallagher & Ascher, by same, 107 bls.
J. H. Scott Paper Company, Canopic, Hamburg, 225 rolls.
N. Y. Hanseatic Corporation, A. Ballin, Hamburg, 17 cs.
F. C. Strype, by same, 8 cs.
Wilkinson Brothers & Co., Inc., by same, 82 rolls.
W. Hartmann & Co., by same, 35 rolls.

### RAGS, BAGGINGS, ETC.

M. O'Meara Company, Liberty, Havre, 90 bls. rags.
Waste Material Trading Corporation, by same, 38 bls. new cuttings.
Equitable Trust Company, Liberty, Dunkirk, 20 bls. rags, 24 bls. thread waste.
Salomon Brothers & Co., by same, 28 bls. thread waste.
International Acceptance Bank, by same, 36 bls. rags.
E. J. Keller Company, Inc., by same, 45 bls. rags.
W. Schall & Co., by same, 44 bls. flax waste, 28 bls. thread waste.
Guaranty Trust Company, Chickahominy, London, 178 bls. rags.
E. J. Keller Company, Inc., Eastern Dawn, Antwerp, 38 bls. rags.
Castle & Overton, by same, 44 bls. rags.
M. O'Meara Company, by same, 75 bls. bagging.
L. H. Abenheimer, Pres. Roosevelt, Bremen, 478 bls. rags.
New York Trust Company, V. Florio, Leghorn, 152 bls. rags.
Irving Bank Columbia Trust Company, Archimedes, Manchester, 28 bls. bagging.
Equitable Trust Company, by same, 42 bls. rags.
Katzenstein & Keene, Inc., by same, 66 bls. rags, 71 bls. new cuttings.
Mechanics & Metals National Bank, by same, 185 bls. rags, 47 bls. bagging.
Guaranty Trust Company, by same, 54 bls. bagging.
L. H. Abenheimer, by same, 79 bls. bagging.
W. Hughes & Co., N. Amsterdam, Rotterdam, 99 bls. cotton waste.
J. Fyfe & Co., Assyria, Glasgow, 139 bls. waste paper.
N. W. Fenton, Inc., London Commerce, London, 88 bls. rags.
Corn Exchange Bank, Mississippi, London, 104 bls. paper stock.
S. Silberman, Wells City, Bristol, 653 bls. rags.
Guaranty Trust Company, by same, 25 bls. rags.
International Acceptance Bank, by same, 61 bls. rags.
Salomon Brothers & Co., Waukegan, Havre, 36 bls. flax waste.
S. Silberman, Verentia, London, 39 bls. rags.
Castle & Overton, Carlier, Antwerp, 182 bls. rags.
E. J. Keller Company, Inc., Grete, Hamburg, 13 bls. rags.
E. J. Keller Company, Inc., Mt. Clay, Hamburg, 73 bls. linen threads, 53 bls. flax waste.

### OLD ROPE

International Purchasing Company, Waukegan, Havre, 34 bls., 4 rolls.
International Purchasing Company, Liberty, Havre, 209 bls., 91 rolls.
W. Schall & Co., Skipsea, Barcelona, 30 bls.
Brown Brothers & Co., Galileo, Hull, 223 coils.
Brown Brothers & Co., McKeesport, Rotterdam, 65 coils.
Brown Brothers & Co., Chickahominy, London, 127 coils.
Brown Brothers & Co., N. Amsterdam, Rotterdam, 216 coils.
Brown Brothers & Co., Wells City, Bristol, 198 coils.
Brown Brothers & Co., A. Ballin, Hamburg, 104 coils.
Brown Brothers & Co., Mississippi, London, 141 coils.
Ellerman Wilson Lines, by same, 38 coils.
E. J. Keller Company, Inc., Mt. Clay, Hamburg, 36 coils.
Irving Bank Columbia Trust Company, R. Maru, Genoa, 70 coils.
Salomon Brothers & Co., E. Dawn, Antwerp, 61 bls.

### WOOD PULP

M. Gottesman & Co., Inc., Georgia, Seebenico, 4,200 bls. wood pulp.
M. Gottesman & Co., Inc., Manchuria, Hamburg, 2,500 bls. wood pulp.
M. Gottesman & Co., Inc., Minnekahda, Hamburg, 198 bls. wood pulp.
M. Gottesman & Co., Inc., Bremen, Bremen, 501 bls. wood pulp.
M. Gottesman & Co., Inc., Canopic, Hamburg, 700 bls. wood pulp.
Castle & Overton, Morristown, Sundsvall, 600 bls., 100 tons wood pulp.
H. Hollesen, Pres. Roosevelt, Bremen, 1,593 bls., 318 tons wood pulp.
Lagerloef Trading Company, by same, 508 bls., 101 tons wood pulp.
H. Hollesen, by same, 2,839 bls., 567 tons wood pulp.
American Woodpulp Corporation, by same, 300 bls., 63 tons wood pulp.
Woodpulp Trading Company, Ltd., by same, 698 bls., 105 tons sulphite pulp.
Tidewater Papermills Company, Bornholm, Liverpool, N. S., 3,300 bls. ground wood pulp.
Wilkinson Brothers & Co., Inc., Ohio, Hamburg, 1,052 bls. sulphite pulp.

### WOODFLOUR

Innes, Spieden & Co., Ohio, Hamburg, 542 bags.
A. Kramer & Co., by same, 444 bags.

### CASEIN

International Acceptance Bank, Vauban, Buenos Aires, 835 bags.

## BOSTON IMPORTS

WEEK ENDING NOVEMBER 17, 1923

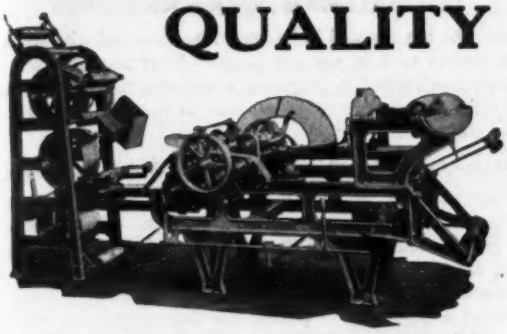
Pagel, Horton & Co., Inc., Gustavsholm, Skutskar, 500 bls. dry wood pulp.
Scandinavian Pulp Agency, Inc., by same, 750 bls. dry wood pulp.
M. Gottesman & Co., Inc., Virginia, Christiania, 500 bls. wood pulp.
E. J. Keller Company, Inc., Edgehill, Rotterdam, 48 bls. rags.
E. J. Keller Company, Inc., Edgehill, Antwerp, 81 bls. rags.
Salomon Bros. & Co., Missouri, Hamburg, 113 bls. rags.
Kalbfleisch Corp., Harmodius, Buenos Aires, 667 bags casein.

## BALTIMORE IMPORTS

WEEK ENDING NOVEMBER 17, 1923

Congoleum Company, Waukegan, Havre, 818 bls. rags.
R. F. Hammond, Inc., Virginia, Christiania, 1,000 bls. wood pulp, 200 tons.
R. F. Hammond, Inc., Trolleholm, Gothenburg, 1,250 bls. wood pulp, 250 tons.

(*Continued on page 64*)



# QUALITY *plus* PRODUCTION

MR. BAG MANUFACTURER: For quality and production every machine is guaranteed, so you take no risk.
The Superintendent of a large bag plant, unsolicited, writes: "All the machines used by this Company have been furnished by you. During my fifteen years in the bag line I have used your machines, and consider them the best square and flat bag machines on the market. I see no reason why the bag manufacturers should not be satisfied with your machines. The design of the Fischer machines and workmanship are A No. 1."
Let us quote you on your requirements of flat and square, as well as satchel bottom machines for making 1/16, ⅛ and ¼ barrel sizes.

**FISCHER MACHINE CO.**
310-316 N. Eleventh St., Philadelphia, Pa.

The B Co.-INC.

# QUALITY PULPS

HAFSLUND NORWAY — **"HAFSLUND BEAR"** Bleached Sulphite

F:HAGA — **"FORSHAGA"** Bleached Sulphite

KRAFT HURUM NORWAY SPECIAL — **"HURUM SPECIAL"** Extra Strong Kraft

KOOS BAC — **"BAMBLE"** Extra Strong Kraft

**The Borregaard Company**
Incorporated
200 FIFTH AVENUE NEW YORK, N. Y.

THE SOURCE OF

# SMALL PAPER ROLLS

OF EVERY DESCRIPTION

ADDING MACHINE ROLLS, CASH REGISTER ROLLS, TICKER TAPE, CLOCK ROLLS, BLASTING, DIE WIPING, TIRE WRAP, BED WRAP, BACKING PAPER, MAILING MACHINE ROLLS

AUTOGRAPH ROLLS, TIME CLOCK ROLLS, RIBBON PAPER, TELAUTOGRAPH, CARPET TISSUE, ROLLS FOR ANY MAKE OF AUTOMATIC REGISTERS, DOMESTIC OR EXPORT PACKING

**Paper Manufacturers Co. Inc.**
PHILADELPHIA - PENN.
MAIN OFFICE 526-528 CHERRY. ST.
FACTORY & R.R. SIDING. 13TH & NOBLE STS.

Fitchburg, Mass., U. S. A.

# UNION SCREEN PLATE COMPANY

Lennoxville, P. Q. Canada

UNION BRONZE (Best phosphorized Cast Metal) **SCREEN PLATES** ROLLED BRASS (Union Quality)

Old Plates RECLOSED and RECUT to accurate gauge.

UNION BRONZE SCREWS for Screen Plates

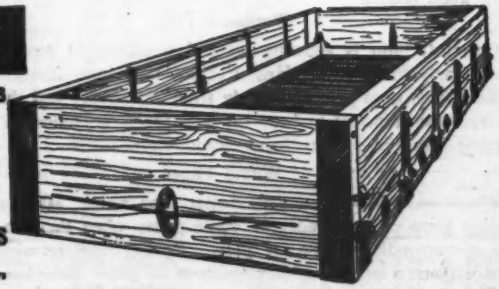
UNION BRONZE SUCTION BOX PLATES

Immediate Delivery of the Largest Orders. Satisfaction Guaranteed.

**THE UNION WHITHAM SCREEN PLATE VAT AND FASTENERS**

THE ORIGINAL — Over One Thousand in Successful Operation

THE BEST — Recommended by Screen Makers



# New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, NOVEMBER 21, 1923.

More hopeful signs appeared in the market last week. There was a general feeling that the whole paper field was due for a lift out of the temporary depression into which it has fallen and that when this lift did come it would mean an extremely prosperous period.

On the one hand the jobbers are reporting that the consumption of paper has not fallen off in the slightest and that they are doing a better business than they were a few weeks ago. On the other side there are the manufacturers who are feeling the effect of some of their largest customers holding off in an effort to get more favorable prices. The manufacturers and sellers of raw materials are not doing so well because of the lax business several of the mills are suffering, but all of this will pass as soon as the shelves are cleared. This, it is estimated, will be fully accomplished by the turn of the year.

News print still continues to be in about the most demand, relatively speaking, of any of the commodities on the market. The mills are running at anywhere from eighty to a hundred per cent capacity and there are takers for everything they turn out of their machines.

The demand for news print is not surprising since most of the papers in all of the great metropolitan centers are reporting increases in advertising and circulation and there is no sign of any let up in the demand.

In some of the other grades the demand is not yet what might be called good, although it is improving. This of course refers to the demand as it is felt by the mills and not by those who come into contact with the ultimate consumers. In wrapping paper, for instance, the recent price cut has failed to entice the great flow of business that was expected, but at the same time more orders have been coming in and it is believed to have reached the turning point. The cut is believed to have had more to do with competition with foreign mills than the demand, anyway.

Taking a long look at the market there seems to have been little real change except for a much more optimistic feeling and a conviction that the period of price-cutting has just about worn itself out. Prices on the whole remained steady with a few minor changes here and there which cannot be considered to have any real bearing on the market situation in general.

Orders for all grades have not shown any tendency to increase in size, although a lot of inquiries are coming in about future business which leads the manufacturers to believe that the reticence of the buyers is just about over.

### Mechanical Pulp

The price of mechanical pulp is now down to the neighborhood of forty-five dollars a ton, which is more nearly normal than it was during the brief flurry of a month ago. The grinding mills are curtailing production partly to conserve water and partly to keep from forcing the market. A good demand for mechanical pulp is still holding out since the news print mills are coming in with good orders.

### Chemical Pulp

Chemical pulp is showing marked weakness in some quarters. particularly kraft pulp. Heavy competition from foreign markets is tending to keep prices unsteady from day to day and the demand is far from sufficient to keep up with the large tonnages that are coming into the market from Scandinavia.

### Waste Paper

Waste paper is still a little better than pulp. Many mills are buying some of the grades of waste paper when they do not buy the corresponding grade of pulp. Prices have remained fairly firm without a great tendency to move in either direction.

## FEDERAL TAX RELIEF

(*Continued from page* 58)

as it can, who are engaged in its line of business and who are in all respects similar to it in size and profits. Most taxpayers will find themselves handicapped in preparing a desirable list, and the Association can, no doubt, be of great value to them in this particular phase of the work.

### You Must Apply for Special Relief in Order to Obtain It

The law provides, gentlemen, that, in order to avail yourselves of the special relief sections, you must act first. The Government cannot give you the benefit of these sections unless you make an application for such consideration. If you have paid a high tax and if abnormal conditions have affected your business I think the Government expects you to present the facts concerning the case. The demands of modern business require that all competitors be assured of a free field and no favor. It was not the intention of Congress to put a taxpayer at a disadvantage in meeting competition or to work upon it an exceptional hardship by forcing it to pay a much greater tax than that paid by its competitors and, therefore, if you can meet the conditions it is not only your privilege, but your duty, to present the facts to the Government.

You and I cannot object to the imposition of heavy taxes for they can only be paid by those who earn enough to pay them. Our willingness to stand the brunt of the mammoth financial burdens which grew out of the late war must be tempered only by our care and anxiety to see that it is properly and equitably distributed. We must neither dodge taxes by making an unfair return to the Government nor treat our stockholders harshly and unjustly by paying a greater proportion of the tax than our proper share. I wish to point out the tremendous task which faces the Bureau of Internal Revenue in auditing the thousands of returns which have been filed with it in the last few years. While I have never been in the employ of the Bureau I can appreciate that many of these returns must be incomplete, some fraudulent and that all of them require a careful scrutiny and review. It is the duty of taxpayers to expedite and facilitate this work when at all possible. This can be done in a very simple way: The Bureau writes to taxpayers for additional information in order to expedite the audit of their returns and they should answer these letters promptly. I have seen letters received by taxpayers and cast aside in the hope that the Bureau would forget about it; this is absurd. Every return will be checked up, sooner or later. You should answer the letters promptly and in the fullest manner possible. When you receive a letter notifying you of an additional assessment and giving you thirty days in which to protest you should, if you desire to protest, make your protest promptly; don't wait until the last day. You should make your protest specific and support it by definite evidence of a convincing nature. I do not want you to construe this talk as one which would lead all of you to file claims for special relief; many of you would not be granted any relief and, by filing a claim, you would place an unnecessary burden on the Bureau. Those of you who have paid a high tax and who find that you have the necessary conditions to meet the requirements of the law, I think, should file claims; but certainly, unless the necessary conditions exist, you should not burden the Bureau by doing it. Mr. Burke can no doubt help you decide whether you should file a claim; I am sure he would be glad of the opportunity.

I have tried, gentlemen, to draw a clear picture for you of the class of corporations for which the relief sections are intended. I realize that the few illustrations used do not cover the field by any means and I shall gladly try to answer any questions which you may care to ask at this time. To the officers of this Association, and particularly to Mr. Burke, I wish to express my appreciation of their kind invitation. Moreover, I have heartily enjoyed the contact with those of your members whom I have met, and I thank you very much.

# Market Quotations

## Paper Stock Securities

New York Stock Exchange closing quotations November 20, 1923

| | BID | ASKED |
|---|---|---|
| American Writing Paper Company, pref. | 2 | 2¼ |
| International Paper Company, com. | 33½ | 34 |
| International Paper Company, pref. stamped | 62 | 64 |
| Union Bag & Paper Corporation | 58¼ | 59 |

## Paper

| F. o. b. Mill | | | |
|---|---|---|---|
| Ledgers | 11.00 | @ | 38.00 |
| Bonds | 9.00 | @ | 45.00 |
| **Writings—** | | | |
| Extra Superfine | 14.00 | @ | 30.00 |
| Superfine | 14.00 | @ | 30.00 |
| Tub Sized | 10.00 | @ | 15.00 |
| Engine Sized | 8.00 | @ | 11.00 |
| **News—f. o. b. Mill—** | | | |
| Rolls, contract | 3.75 | @ | 4.00 |
| Rolls, transit | 4.00 | @ | 4.25 |
| Sheets | 4.25 | @ | 4.50 |
| Side runs | 3.50 | @ | 4.15 |
| **Book, Cased—f. o. b. Mill—** | | | |
| S. & S. C. | 7.25 | @ | 9.00 |
| M. F. | 7.00 | @ | 8.75 |
| Coated and Enamel | 9.00 | @ | 14.00 |
| Lithograph | 9.00 | @ | 14.00 |
| **Tissues—f. o. b. Mill—** | | | |
| White No. 1 | .80 | @ | .90 |
| White No. 2 | .85 | @ | .95 |
| Colored | 1.15 | @ | 2.00 |
| Anti-Tarnish | 1.50 | @ | 2.00 |
| Kraft | .95 | @ | 1.15 |
| Manila | .78 | @ | .85 |
| **Kraft—f. o. b. Mill—** | | | |
| No. 1 Domestic | 6.00 | @ | 6.25 |
| No. 2 Domestic | 5.25 | @ | 5.75 |
| Imported | 4.65 | @ | 5.20 |
| **Manila—** | | | |
| No. 1 Jute | 8.50 | @ | 9.00 |
| No. 2 Jute | 7.75 | @ | 8.50 |
| No. 1 Wood | 4.75 | @ | 5.25 |
| No. 2 Wood | 4.00 | @ | 4.50 |
| Butchers | 4.25 | @ | 4.75 |
| **Fibre Papers—** | | | |
| No. 1 Fibre | 5.50 | @ | 5.75 |
| No. 2 Fibre | 5.00 | @ | 5.25 |
| Common Bogus | 3.50 | @ | — |
| S. Screening | 3.25 | @ | 3.75 |
| Card Middles | 4.00 | @ | 5.00 |
| **Boards—per ton—** | | | |
| News | 55.00 | @ | 60.00 |
| Straw | 61.00 | @ | 63.00 |
| Chip | 50.00 | @ | 55.00 |
| Binders' Boards | 70.00 | @ | 75.00 |
| Sgl. Mla. Ll. Chip | 65.00 | @ | 75.00 |
| Wood Pulp | 70.00 | @ | 75.00 |
| Container | 70.00 | @ | 80.00 |
| **Sulphate Screenings—** | | | |
| Coarse | .80 | @ | .90 |
| Refined | 1.75 | @ | 2.00 |
| Ground Wood—Screenings | 20.00 | @ | 25.00 |
| **Glassine—** | | | |
| Bleached, basis 25 lbs. | 15.00 | @ | 16.00 |
| Bleached, basis 20 lbs. | 17.00 | @ | 18.00 |
| **Papermakers' Felts per ton—** | | | |
| Dry | 75.00 | @ | 85.00 |
| Saturated | 65.00 | @ | 75.00 |
| **Sheathing Paper per ton—** | | | |
| Rosin Sized (red and gray, 30 lbs. per 500 sq. ft.) | 55.00 | @ | 65.00 |

## Mechanical Pulp

| (Ex-Dock) | | | |
|---|---|---|---|
| No. 1 Imported | 40.00 | @ | 45.00 |
| (F. o. b. Mill) | | | |
| No. 1 Domestic | 40.00 | @ | 45.00 |

## Chemical Pulp

| (Ex-Dock, Atlantic Ports) | | | |
|---|---|---|---|
| Sulphite (Imported)— | | | |
| Bleached | 4.50 | @ | 5.00 |
| Easy Bleaching | 3.50 | @ | 3.75 |
| No. 1 strong unbleached | 3.30 | @ | 3.50 |
| No. 2 Strong unbleached | 2.85 | @ | 3.10 |
| No. 1 Kraft | 3.25 | @ | 3.40 |
| Sulphate— | | | |
| Bleached | 4.00 | @ | 4.15 |
| (F. o. b. Pulp Mill) | | | |
| Sulphite (Domestic)— | | | |
| Bleached | 4.30 | @ | 5.00 |
| Easy Bleaching Sulphite | 3.25 | @ | 3.50 |
| News Sulphite | 3.00 | @ | 3.25 |
| Mitscherlich | 3.20 | @ | 3.30 |
| Kraft (Domestic) | 3.10 | @ | 3.30 |
| Soda Bleached | 4.25 | @ | 4.35 |

## Domestic Rags

| New Prices to Mill, f. o. b. N. Y. | | | |
|---|---|---|---|
| **Shirt Cuttings—** | | | |
| New White, No. 1 | 12.00 | @ | 13.00 |
| New White, No. 2 | 6.00 | @ | 6.50 |
| Silesias, No. 1 | 7.00 | @ | 7.50 |
| New Unbleached | 10.50 | @ | 11.00 |
| Washables | 4.75 | @ | 5.00 |
| Fancy | 5.50 | @ | 6.00 |
| Blue Overall | 7.50 | @ | 8.00 |
| New Blue | 5.00 | @ | 5.55 |
| New Black Soft | 4.75 | @ | 5.25 |
| New Light Seconds | 2.75 | @ | 3.00 |
| O. D. Khaki Cuttings | 4.25 | @ | 4.50 |
| Men's Corduroy | 3.50 | @ | 3.75 |
| New Canvas | 6.50 | @ | 7.00 |
| New Black Mixed | 2.60 | @ | 2.80 |
| **White, No. 1—** | | | |
| Repacked | 5.75 | @ | 6.25 |
| Miscellaneous | 5.00 | @ | 5.25 |
| **White, No. 2—** | | | |
| Repacked | 3.80 | @ | 4.12 |
| Miscellaneous | 3.25 | @ | 3.50 |
| St. Soiled, White | 2.50 | @ | 2.75 |
| **Thirds and Blues—** | | | |
| Repacked | 2.60 | @ | 2.87 |
| Miscellaneous | 2.25 | @ | 2.50 |
| Black Stockings | 2.75 | @ | 3.00 |
| **Roofing Rags—** | | | |
| Cloth Strippings | 1.30 | @ | 1.40 |
| No. 1 | 1.30 | @ | 1.40 |
| No. 2 | 1.20 | @ | 1.30 |
| No. 3 | .85 | @ | .95 |
| No. 4 | .85 | @ | .95 |
| No. 5A | 1.00 | @ | 1.10 |

## Foreign Rags

| | | | |
|---|---|---|---|
| New Light Silesias | 5.50 | @ | 7.50 |
| Light Flannelettes | 8.00 | @ | |
| Unbl'chd Cottons | 7.50 | @ | 8.50 |
| New White Cuttings | 10.00 | @ | 11.00 |
| New Light Oxfords | 6.00 | @ | 7.25 |
| New Light Prints | 4.50 | @ | 6.00 |
| New Mixed Cuttings | 2.00 | @ | 2.50 |
| New Dark Cuttings | 1.80 | @ | 2.20 |
| No. 1 White Linens | 10.00 | nominal | |
| No. 2 White Linens | 6.50 | nominal | |
| No. 3 White Linens | 5.00 | nominal | |
| No. 4 White Linens | 3.50 | nominal | |
| Old Extra Light Prints | 2.50 | nominal | |
| Ord. Light Prints | 2.25 | nominal | |
| Med. Light Prints | 2.00 | nominal | |
| Dutch Blue Cotton | 2.50 | nominal | |
| German Blue Cottons | 2.00 | nominal | |
| Ger. Blue Linens | 3.00 | @ | 3.25 |
| Checks and Blues | 1.25 | @ | 1.50 |
| Dark Cottons | 1.25 | @ | 1.40 |
| Shoppery | 1.00 | @ | 1.05 |
| French Blues | 2.25 | nominal | |

## Bagging

| Prices to Mill F. o. b. N. Y. | | | |
|---|---|---|---|
| **Gunny No. 1—** | | | |
| Foreign | 1.20 | @ | 1.30 |
| Domestic | 1.30 | @ | 1.35 |
| Wool, Tares, light | 1.30 | @ | 1.40 |
| Wool, Tares, heavy | 1.30 | @ | 1.40 |
| Bright Bagging | 1.05 | @ | 1.20 |
| Sound Bagging | .90 | @ | 1.00 |
| **Manila Rope—** | | | |
| Foreign | 4.75 | @ | 5.25 |
| Domestic | 5.00 | @ | 5.50 |
| New Bu. Cut | 2.15 | @ | 2.25 |
| **Hessian Jute Threads—** | | | |
| Foreign | 2.00 | @ | 2.25 |
| Domestic | 2.00 | @ | 2.10 |

## Twines

| | | | |
|---|---|---|---|
| **Cotton—(F. o. b. Mill)—** | | | |
| No. 1 | .32 | @ | .36 |
| No. 2 | .29 | @ | .31 |
| No. 3 | .34 | @ | .36 |
| **India, No. 6 basis—** | | | |
| Light | .17 | @ | .18 |
| Dark | .16 | @ | .17 |
| B. C., 18 basis | .41 | @ | .42 |
| A. B. Italian, 18 Basis | .51 | @ | .61 |
| **Finished Jute—** | | | |
| Dark, 18 basis | .29 | @ | .30 |
| Light, 18 basis | .26 | @ | .27 |
| **Jute Wrapping, 3-6 Ply—** | | | |
| No. 1 | .20 | @ | .23 |
| No. 2 | .18 | @ | .20 |
| **Tube Rope—** | | | |
| 4-ply and larger | .15 | @ | .17 |
| **Fine Tube Yarn—** | | | |
| 5-ply and larger | .19 | @ | .21 |
| 4-ply | .20 | @ | .22 |
| 3-ply | .20 | @ | .22 |
| **Unfinished India—** | | | |
| Basis | .16 | @ | .17 |
| **Paper Makers' Twine Balls** | .09 | @ | .11 |
| **Box Twine, 2-3 ply** | .14 | @ | .15 |
| **Jute Rope** | .15 | @ | .16 |
| **Amer. Hemp, 6** | .30 | @ | .32 |
| **Sisal Hay Rope—** | | | |
| No. 1 Basis | .14 | @ | .16 |
| No. 2 Basis | .10 | @ | .12 |
| **Sisal Lath Yarn—** | | | |
| No. 1 | .14 | @ | .15 |
| No. 2 | .11 | @ | .13 |
| **Manila Rope** | .18 | @ | .19 |

## Old Waste Papers

(F. o. b. New York.)

| | | | |
|---|---|---|---|
| **Shavings—** | | | |
| Hard, White, No. 1 | 4.15 | @ | 4.25 |
| Hard, White, No. 2 | 3.30 | @ | 3.40 |
| Soft, White, No. 1 | 3.20 | @ | 4.35 |
| **Flat Stock—** | | | |
| Stitchless | 1.85 | @ | 1.95 |
| Over Issue Mag. | 1.85 | @ | 1.95 |
| Solid Flat Book | 1.65 | @ | 1.90 |
| Crumbled No. 1 | 1.40 | @ | 1.50 |
| Solid Book Ledger | 2.00 | @ | 2.40 |
| Ledger Stock | 1.80 | @ | 1.90 |
| New B. B. Chips | .75 | @ | .85 |
| **Manilas—** | | | |
| New Env. Cut | 2.60 | @ | 2.70 |
| New Cut No. 1 | 1.90 | @ | 2.15 |
| Extra No. 1 old | 1.45 | @ | 1.55 |
| Print | 1.10 | @ | 1.20 |
| Container Board | 1.00 | @ | 1.05 |
| Bogus Wrapper | .90 | @ | 1.00 |
| Old Krafts, machine compressed bales | 2.15 | @ | 2.25 |
| **News—** | | | |
| No. 1 White News | 2.05 | @ | 2.20 |
| Strictly overissue | 1.15 | @ | 1.25 |
| Strictly Folded | .90 | @ | 1.00 |
| No. 1 Mixed Paper | .60 | @ | .75 |
| Common Paper | .50 | @ | .60 |

## CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

### Paper

| F. o. b. Mill | | | |
|---|---|---|---|
| All Rag Bond | 35 | @ | 40 |
| No. 1 Rag Bond | 30 | @ | 35 |
| No. 2 Rag Bond | 14 | @ | 25 |
| **Water Marked Sulphite** | 9½ | @ | 13 |
| Sulphite Bond | 8 | @ | 12 |
| Sulphite Ledger | 9½ | @ | 14 |
| Superfine Writing | 18 | @ | 24 |
| No. 1 Fine Writing | 14 | @ | 18 |
| No. 2 Fine Writing | 12 | @ | 14 |
| No. 3 Fine Writing | 9 | @ | 12 |
| No. 1 M. F. Book | 5¾ | @ | 7½ |
| No. 1 S. & S. C. Book | 6¾ | @ | 7¾ |
| Coated Book | 8½ | @ | 10 |
| Coated Label | 8½ | @ | 10 |
| News—Rolls, mill | 3½ | @ | 4½ |
| News—Sheets, mill | 4½ | @ | 4¾ |
| No. 1 Manila | 4½ | @ | 6 |
| No. 1 Fibre | 5½ | @ | 5¾ |
| No. 2 Manila | 4½ | @ | 5 |
| Butchers' Manila | 4 | @ | 4½ |
| No. 1 Kraft | 5.50 | @ | 6.00 |
| No. 2 Kraft | 5½ | @ | 6 |
| Wood Tag Boards | 4½ | @ | 6 |
| Screenings | 3¾ | @ | 4 |
| **Boards, per ton—** | | | |
| Plain Chip | $45.00 | @ | 50.00 |
| Solid news | 50.00 | @ | 55.00 |
| **Manila Lined Chip** | 60.00 | @ | 62.50 |
| **Container Lined—** | | | |
| 85 Test | 65.00 | @ | 70.00 |
| 100 Test | 70.00 | @ | 75.00 |

### Old Papers

F. o. b. Chicago

| | | | |
|---|---|---|---|
| **Shavings—** | | | |
| No. 1 Hard White | 3.70 | @ | 3.80 |
| No. 1 Soft Shav. | 2.90 | @ | 3.00 |
| No. 1 Mixed | 1.30 | @ | 1.40 |
| No. 2 Mixed | 1.20 | @ | 1.30 |
| White Envel. Cuttings | 3.70 | @ | 3.80 |
| **Ledgers and Writings** | 1.85 | @ | — |
| Solid Books | 1.70 | @ | — |
| No. 1 Books, Light | 1.45 | @ | — |
| Blanks | 2.20 | @ | 2.25 |
| Ex. No. 1 Manila | 2.30 | @ | 2.40 |
| **Manila Envelope Cuttings** | 2.50 | @ | 2.60 |
| No. 1 Manilas | 1.30 | @ | 1.40 |
| **Folded News (over issue)** | 1.00 | @ | — |
| Old Newspaper | .85 | @ | .90 |
| Mixed Papers | .85 | @ | .90 |
| Straw Clippings | .80 | @ | .85 |
| Binders' Clippings | .80 | @ | .85 |
| Kraft | 2.25 | @ | — |
| New Kraft Cuts | 2.40 | @ | 2.50 |
| **Roofing Stock, f. o. b. Chicago, Net Cash—** | | | |
| No. 1 | 32.00 | @ | — |
| No. 2 | 30.00 | @ | — |
| No. 3 | 28.00 | @ | — |
| No. 4 | 28.00 | @ | — |

## PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

### Paper

| | | | |
|---|---|---|---|
| **Bonds** | .10 | @ | .60 |
| **Ledgers** | .15 | @ | .40 |
| **Writings—** | | | |
| Superfine | .15 | @ | .20 |
| Extra fine | .12 | @ | .22 |
| Fine | .20 | @ | .30 |
| Fine, No. 2 | .20 | @ | .25 |
| Fine, No. 3 | .15 | @ | .20 |
| Book, M. F. | .06 | @ | .11 |
| Book, S. S. & C. | .08 | @ | .15 |
| Book, Coated | .08 | @ | .15 |
| Coated Lithograph | .10 | @ | .15 |
| Label | .08 | @ | .15 |
| News | .05 | @ | .07 |
| No. 1 Jute Manila | .12 | @ | .13 |
| Manila Sul., No. 1 | .08 | @ | .10 |
| Manila No. 2 | .07½ | @ | .08 |
| No. 2 Kraft | — | @ | .10 |
| No. 1 Kraft | — | @ | .11 |
| Common Bogus | .02½ | @ | .03 |
| Straw Board | 75.00 | @ | 85.00 |
| News Board | 65.00 | @ | 70.00 |
| Chip Board | 62.50 | @ | 67.00 |
| Wood Pulp Board. 1.25 (Carload Lots) | | @ | 1.50 |
| **Binder Boards—** | | | |
| Per ton | 75.00 | @ | 80.00 |
| Carload lots | 75.00 | @ | 80.00 |
| **Tarred Felts—** | | | |
| Regular | 48.00 | @ | 50.00 |
| Slaters | 54.00 | @ | 56.00 |
| Best Tarred, 1-ply (per roll) | 1.35 | @ | 1.50 |
| Best Tarred, 2-ply (per roll) | 1.00 | @ | 1.15 |
| Best Tarred, 3-ply | 1.50 | @ | 1.65 |

### Bagging

F. o. b. Phila.

| | | | |
|---|---|---|---|
| **Gunny No. 1—** | | | |
| Foreign | 1.25 | @ | — |
| Domestic | 1.20 | @ | 1.25 |
| Manila Rope | 5.00 | @ | 6.00 |
| Sisal Rope | .75 | @ | .80 |
| Mixed Rope | .75 | @ | .80 |
| Scrap Burlaps | 1.00 | @ | 1.25 |
| Wool Tares, heavy | 2.50 | @ | 2.75 |
| Mixed Strings | .75 | @ | .80 |
| No. 1, New Lt. Burlap | 1.75 | @ | 2.00 |
| New Burlap Cuttings | 1.75 | @ | 2.10 |

### Old Papers

F. o. b. Phila.

| | | | |
|---|---|---|---|
| **Shavings—** | | | |
| No. 1, Hard White | 4.25 | @ | 4.40 |
| No. 2, Hard White | 3.50 | @ | 3.75 |
| No. 1 Soft White | 3.25 | @ | 3.50 |
| No. 2 Soft White | 2.15 | @ | 2.35 |

(Continued on page 66)

# Imports and Exports of Paper and Paper Stock

(*Continued from page 60*)

## PHILADELPHIA IMPORTS

WEEK ENDING NOVEMBER 17, 1923

R. F. Hammond, Inc., Stureholm, Gothenburg, 500 bls. wood pulp, 100 tons.
M. Gottesman & Co., Inc., Missouri, Hamburg, 331 bls. wood pulp.
Castle & Overton, Burgerdyk, Hamburg, 678 bls. wood pulp.
Castle & Overton, by same, 2,030 bls. wood pulp.
Castle & Overton, Westerner, Rotterdam, 53 bls. rags.
Castle & Overton, Burgerdyk, Rotterdam, 634 bls. rags.
Castle & Overton, Alexandra, Copenhagen, 254 bls. rags.
Castle & Overton, Collamer, Havre, 255 bls. rags.
Katzenstein & Keene, Inc., Grete, Hamburg, 342 bls. rags.
Katzenstein & Keene, Inc., W. Heinsothe, Hamburg, 54 bls. rags.
E. J. Keller Company, Inc., Falls City, Hamburg, 510 bls. rags.
E. J. Keller Company, Inc., Grete, Hamburg, 539 bls. rags.
E. J. Keller Company, Inc., by same, 80 bls. rag pulp.
E. J. Keller Company, Inc., W. Elcasco, Marseilles, 75 bls. rags.
E. J. Keller Company, Inc., W. Elcasco, Leghorn, 194 bls. rags.
E. J. Keller Company, Inc., Burgerdyk, Rotterdam, 155 bls. rags.
E. J. Keller Company, Inc., Liberty, Havre, 149 bls. rags.
E. J. Keller Company, Inc., by same, 56 bls. strings.
Waste Material Trading Company, by same, 27 bls. new cuttings.
Waste Material Trading Company, by same, 114 bls. rags.
Patterson Parchment Paper Company, by same, 37 bls. rags.
Katzenstein & Keene, Inc., by same, 121 bls. rags.
D. J. Murphy, by same, 33 bls. rags.
Castle & Overton, by same, 20 bls. rags.
Castle & Overton, by same, 25 bls. new cuttings.
Castle & Overton, by same, 34 bls. bagging.
New York Trust Company, Liberty, Dunkirk, 285 bls. rags.
Katzenstein & Keene, Inc., by same, 142 bls. rags.
Bankers' Trust Company, by same, 170 bls. rags.
Waste Material Trading Corp., E. Dawn, Antwerp, 247 bls. rags.
McKenzie & Foster, by same, 2 bls. rags.
Castle & Overton, by same, 241 bls. rags.
E. J. Keller Company, Inc., by same, 264 bls. rags.
E. J. Keller Company, Inc., by same, 76 bls. bagging.
A. Brown & Sons, by same, 75 bls. bagging.
A. Brown & Sons, by same, 526 bls. rags.
American Wood Pulp Corp., by same, 110 bls. rags.
National Bank of Philadelphia, by same, 92 bls. rags.
Patterson Parchment Paper Company, by same, 100 bls. rags.
D. J. Murphy, by same, 134 bls. rags.
S. Berkenstein, London Commeree, London, 88 coils, old rope.

## PORTLAND, MAINE, IMPORTS

WEEK ENDING NOVEMBER 17, 1923

Pagel, Horton & Co., Inc., Gustavsholm, Skutskar, 4,000 bls. dry wood pulp.
Bulkley, Dunton & Co., Gustavsholm, Iggesund, 2,500 bls. strong sulphite pulp.
Johanesscn, Wales & Sparre, Inc., Gustavsholm, Sundsvall, 1,200 bls. wet mechanical pulp.

## NEW ORLEANS IMPORTS

WEEK ENDING NOVEMBER 17, 1923

Castle & Overton, Missouri, Havre, 473 bls. rags.

## IMPORTS AT HAVANA, CUBA

Salomon Bros. & Co., Lowther Castle, Rotterdam, 124 bls. rags.

## Assessment on Paper Machine Felts

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 20, 1923.—Woolen paper machine felts are to be assessed as woolen rags under paragraph 1105 according to an announcement made by the Treasury Department on Saturday. Assistant Secretary of the Treasury Moss in a communication to the Collector of Customs at Detroit on this subject says:

"The department is in receipt of a communication from the Office of the Director of the Special Agency Service inviting attention to a variance in practice between the port of Sault Ste. Marie, in your district, and the port of New York, in the classification of woolen paper machine endless felts.

"Your Deputy Collector expresses the opinion that the merchandise in question is properly dutiable under paragraph 1119 at the rate of 50 per centum ad valorem, whereas at the port of New York it was returned for duty at the rate of 7½ cents per pound as woolen rags.

"In the opinion of the Department the question involved in this correspondence is identical with that which was before the Court of Customs Appeals in T. D. 38260, wherein discarded pulp felts composed entirely of wool from 8 to 15 feet wide and from 30 to 60 feet long, used on paper making machines, but which, in their imported condition, had been worn out by use, were entitled to admission free of duty under the provisions of paragraph 651 of the Act of 1913.

"Paragraph 1105 of the present tariff act has the same provision for wool waste not specially provided for as paragraph 651, only instead of being free of duty, it is made dutiable at the rate of 16 cents per pound. Paragraph 1105 also has a provision for woolen rags at the rate of 7½ cents per pound, and as the merchandise in question is known commercially as woolen rags, and although in the absence of a provision for woolen rags, they would be covered by the term 'wool waste,' the Department concurs in the practice at the port of New York in assessing duty on the merchandise under consideration as woolen rags at the rate of 7½ cents per pound under paragraph 1105 of the Tariff Act."

## Norwegian Paper Market

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 21, 1923.—Very few changes have occurred in pulp and paper prices during the past few months according to a report received by the Paper Division of the Department of Commerce from the American Consul General Snyder, at Christiania, on the Norwegian pulp and paper situation. Mechanical groundwood was being quoted on October 10 at 135 crowns, which price has been in effect since May 23. Easy bleaching sulphite has declined another 10 crowns during the past month, and strong sulphite 15 crowns, present quotations being 425 and 410 crowns, respectively. On the other hand bleached sulphite still remains at 575 crowns, and easy-bleaching sulphite at 420 crowns, and draft pulp at 400 crowns, prices on the last two grades not having changed since September 1.

Quotations on news print remain at £16, but those on greaseproof and draft have fallen off slightly, present prices being £27 and £22, 15s. All above quotations are per metric ton, f.o.b. Norwegian ports.

Reports received from various parts of Norway during the last week of September indicated that the pulpwood market is still very quiet with prices remaining firm at about 23 kroner per cubic meter for fir and 18 kroner per cubic meter for pine ($13.29 and $10.42 per cord respectively). Most of the pulpwood owners have stocks on hand, and forest operations at present are being carried on merely for the purpose of securing cash to pay taxes.

## Open Seattle Office

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., November 20, 1923.—The Kalamazoo Loose Leaf Binder Company has opened a general sales office at Seattle, Washington. Captain A. Mark Smith has been placed in charge. With the transfer of Captain Smith to the west, Charles Wigginton has assumed the secretarial duties. George P. Wigginton, president of the company, is now on a long business trip through the south and west.

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280 Broadway

Dayton Office

Chicago Office
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# Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, NOVEMBER 21, 1923.

Alhough the movement toward better business has not yet communicated itself to the chemical markets there is general feeling there that it is bound to do so soon. Conditions remained static in this market during the week with no price changes worth noting and no real advances or retrogressions in the situation. The fact that prices did not change is taken as a hopeful sign by the large dealers in chemicals and miscellaneous supplies since there has been a marked tendency toward price cutting and cut-throat competition for the past few weeks. All of the dealers would really rather see a little more business now than any alteration of the quotations and they are confident that they will see this in a short time. Otherwise the market was static.

BLEACHING POWDER.—Trading in bleach was dull despite the willingness of several large manufacturers to sell at extremely low prices in order to beat out their competitors. Just why such a fight was started in a dull market is difficult to explain. It may be that when the campaign was launched it was thought that the market was recovering sufficiently to make things interesting. As the situation stands now it is impossoble to quote because of the marked lack of firmness. As the price went slithering downward reputable dealers were taking 1.20 to 1.25 cents a pound for it.

CAUSTIC SODA.—Caustic also was in poor demand this week in comparison with what was expected of it. This should not be construed as meaning that caustic is in the doldrums, but dealers hope to see an increase very soon. The price is around 3.10 cents a pound on a flat basis at the works. It is thought that the slightly lower price will attract buyers who have been heretofore holding off.

CASEIN.—Casein has not changed much during the past week with the demand about the same and no sign of any upward or downward changes in the price. It is still quoted at from 14 to 17 cents a pound in both the domestic and the foreign grades.

CHINA CLAY.—The same prices continue on china clay with the buying hardly what could be called brisk, but enough to keep things moving along at an even rate. Prices on the domestic grades are from $12 to $15 a ton and on the imported run from $16 to $20.

CHLORINE.—The demand for chlorine has not changed during the week with no further recovery reported. Orders are still for small quantities and it is reported that the dealers have some on hand. Prices continue at 3.50 cents a pound in tank cars.

ROSIN.—Naval stores also remained in a static condition during the past seven days with the price about the same. The paper industry is not calling for so much of the product as it generally does at this time but manufacturers say that there is little hope for any reductions in price. The price is about $5.80 to $6 in 280 pound barrels.

SALTCAKE.—Saltcake is still in fair demand, although there was a slight falling off in the call for it during the past week. The situation is not such as to cause any change in the price, however, which remains at from $22 to $24 a ton. It is said that concessions will be made in this on the open market in some instances.

SODA ASH.—Manufacturers of soda ash say that the demand for this is somewhat better than that for bleach and caustic, although it is not as good as they had hoped it would be. It is still improving slowly and outside the paper industry dealers are having little trouble in disposing of it. The price is 1.38 cents on a flat basis.

STARCH.—The demand for starch is of sufficient strength to keep the price at the same level as last week, which is 3.42 to 3.70 cents a pound for the paper maker's grade.

SULPHITE OF ALUMINA.—Alumina is not in quite as good demand as it was. The price remains at 2.00 to 2.25 cents for the iron free and 1.25 to 1.35 cents for the commercial grades per pound.

# Market Quotations

(*Continued from page 63*)

| | | | |
|---|---|---|---|
| No. 1 Mixed | 1.60 | @ | 1.75 |
| No. 2 Mixed | 1.25 | @ | 1.50 |
| Solid Ledger Stock | 2.25 | @ | 2.50 |
| Writing Paper | 2.00 | @ | 2.25 |
| No. 1 Books, heavy | 2.00 | @ | 2.25 |
| No. 2 Books, light | 1.40 | @ | 1.50 |
| No. 1 New Manila | 2.75 | @ | 3.00 |
| No. 1 Old Manila | 1.75 | @ | 2.00 |
| Container Manila | 1.25 | @ | 1.50 |
| Old Kraft | 2.25 | @ | 2.50 |
| Overissue News | 1.25 | @ | 1.35 |
| Old Newspaper | .90 | @ | 1.00 |
| No. 1 Mixed Paper | 1.00 | @ | 1.10 |
| Common Paper | .80 | @ | .90 |
| Straw Board, Chip | 1.00 | @ | 1.10 |
| Binders Bd., Chip | 1.00 | @ | 1.10 |
| **Domestic Rags—New. Price to Mill, f. o. b. Phila.** | | | |
| Shirt Cuttings— | | | |
| New White, No. 1 | .12 | @ | .12¼ |
| New White, No. 2 | .07 | @ | — |
| Silesias, No. 1 | .07¼ | @ | .07½ |
| New Unbleached | .10 | @ | .11 |
| Washables | .04½ | @ | — |
| Fancy | .05¼ | @ | .05½ |
| Cottons—according to grades— | | | |
| Blue Overall | .05½ | @ | .05¾ |
| New Blue | .02¾ | @ | .02¾ |
| New Black Soft | .05¾ | @ | .06½ |
| New Light Seconds | .02¾ | @ | .02¾ |
| Khaki Cuttings | .11 | @ | .04½ |
| Corduroy | .03½ | @ | .04 |
| New Canvas | .03¼ | @ | .03¾ |
| New Black Mixed | .04 | @ | — |
| Old White, No. 1— | | | |
| Repacked | .06 | @ | .06¼ |
| Miscellaneous | .04¼ | @ | .04¾ |
| White, No. 2— | | | |
| Repacked | .03½ | @ | .04 |
| Miscellaneous | .03 | @ | .03¼ |
| Thirds and Blues— | | | |
| Repacked | 2.50 | @ | 2.75 |
| Miscellaneous | 2.15 | @ | 2.35 |
| Black Stockings | 2.75 | @ | 3.00 |
| Roofing Stock— | | | |
| No. 1 | 1.35 | @ | 1.40 |
| No. 2 | 1.25 | @ | 1.30 |
| No. 3 | .75 | @ | .90 |
| No. 4 | 1.15 | @ | 1.20 |
| No. 5A | 1.10 | @ | — |
| B | | | nominal |
| C | | | nominal |

## BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

### Paper

| | | | |
|---|---|---|---|
| Bonds | .09½ | @ | .63 |
| Ledgers | .09½ | @ | .55 |
| Writings | .08½ | @ | .42 |
| Superfine | .16 | @ | .26 |
| Fine | .15 | @ | .18 |
| Books, S. & S. C. | .07¼ | @ | .12 |
| Books, M. F. | .07¼ | @ | .09½ |
| Books, coated | .09 | @ | .15 |
| Label | .09 | @ | .13 |
| News, sheets | 4.75 | @ | 6.00 |
| News, rolls | 4.50 | @ | 5.75 |
| Manilas— | | | |
| No. 1 Manila | 6.00 | @ | 7.00 |
| No. 1 Fiber | .06½ | @ | .07 |
| No. 1 Jute | 9.00 | @ | 10.50 |
| Kraft Wrapping | .07 | @ | — |
| Common Bogus | 3.50 | @ | 3.85 |

### Boards

(Per Ton Destination)

| | | | |
|---|---|---|---|
| Chip | $45.00 | @ | 50.00 |
| News, Vat Lined | 50.00 | @ | — |
| Wood, Vat Lined | 55.00 | @ | 57.50 |
| Filled News Board | 50.00 | @ | 52.50 |
| Solid News Board, No. 4 Finish | 70.00 | @ | — |
| S. Manila Chip | 65.00 | @ | 72.50 |
| Pat. Coated | 85.00 | @ | 95.00 |

### Old Papers

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 3.90 | @ | 4.10 |
| No. 1 Soft White | 3.00 | @ | 3.25 |
| No. 1 Mixed | 1.00 | @ | 1.25 |
| Ledgers & Wedding | 2.00 | @ | — |
| Solid Books | 1.75 | @ | 1.90 |
| Blanks | 2.00 | @ | 2.25 |
| No. 2 Light Books | 1.50 | @ | — |
| Folded News, overissues | .90 | @ | .95 |
| Gunny Bagging | 1.10 | @ | 1.12½ |
| Manila Rope | 5.87½ | @ | — |
| Mixed paper | .55 | @ | .60 |
| Old News | .75 | @ | .80 |
| Old Kraft | 1.90 | @ | 2.10 |
| No. 1 Scrap Burlap | 1.00 | @ | 1.10 |
| No. 2 Roofing Bagging | .90 | @ | — |
| Mixed Strings | 1.00 | @ | 1.10 |
| No. 1 Roofing Rags | 1.45 | @ | 1.50 |

## TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

### Paper

(Mill Prices to Jobbers f. o. b. Mill)

| | | | |
|---|---|---|---|
| Bond— | | | |
| Sulphite | .11 | @ | .12½ |
| Light tinted | .12 | @ | .13½ |
| Dark Tinted | .13½ | @ | .15 |
| Ledgers (sulphite) | — | @ | .13 |
| Writing | .09½ | @ | .12 |
| News, f. o. b. Mills— | | | |
| Rolls (carloads) | 3.75 | @ | — |
| Sheets (carloads) | — | @ | 4.50 |
| Sheets (2 tons or over) | — | @ | 4.75 |
| Book— | | | |
| No. 1 M. F. (carloads) | 9.00 | @ | — |
| No. 2 M. F. (carloads) | 8.00 | @ | — |
| No. 3 M. F. (carloads) | 7.50 | @ | — |
| No. 1 S. C. (carloads) | 9.50 | @ | — |
| No. 2 S. C. (carloads) | 8.50 | @ | — |
| No. 1 Coated and litho | 14.50 | @ | — |
| No. 2 Coated and litho | 13.50 | @ | — |
| No. 3 Coated and litho | 12.75 | @ | — |
| Wrapping— | | | |
| Grey | 5.00 | @ | — |
| White Wrap | 5.75 | @ | — |
| "B" Manila | 6.00 | @ | — |
| No. 1 Manila | 7.25 | @ | — |
| Fiber | 7.25 | @ | — |
| Kraft, M. F. | 8.00 | @ | — |
| M. G. | 8.15 | @ | — |

### Pulp

(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Ground wood | $45.00 | @ | 46.00 |
| Sulphite easy bleaching | 60.00 | @ | 65.00 |
| Sulphite news grade | 55.00 | @ | 60.00 |
| Sulphite, bleached | 85.00 | @ | 90.00 |
| Sulphate | 70.00 | @ | 75.00 |

### Old Waste Papers

(In carload lots, f. o. b. Toronto)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| White Env. Cut | 3.65 | @ | |
| Soft White Book shavings | 3.20 | @ | |
| White Blk. News | 2.15 | @ | |
| Book and Ledger— | | | |
| Flat Magazine and Book Stock (old) | 1.85 | @ | — |
| Light and Crumpled Book Stock | 1.70 | @ | — |
| Ledgers and Writings | 1.85 | @ | 2.25 |
| Solid Ledgers | 2.00 | @ | — |
| Manilas— | | | |
| New Manila Cut | 2.15 | @ | |
| Printed Manilas | 1.55 | @ | — |
| Kraft | 2.15 | @ | |
| News and Scrap— | | | |
| Strictly Overissue | 1.00 | @ | |
| Folded News | 1.00 | @ | |
| No. 1 Mixed Papers | .80 | @ | |
| Domestic Rags— Price to mills, f. o. b. Toronto | | | Per lb. |
| No. 1 White shirt cuttings | .12 | @ | .12½ |
| No. 2 White shirt cuttings | .06 | @ | — |
| Fancy shirt cuttings | .05½ | @ | .06 |
| No. 1 Old Whites | .04½ | @ | — |
| Third and blues | .02½ | @ | .02¾ |
| | | | Per cwt. |
| Black stockings | .03 | @ | — |
| Roofing stock: | | | |
| No. 1 | — | @ | — |
| No. 2 | — | @ | — |
| Manila rope | .06¼ | @ | .06 |
| No. 2 | 1.55 | @ | — |
| Gunny Bagging | .01¾ | @ | — |